This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

https://books.google.com

Digitized by Google

BOSTON
MEDICAL LIBRARY
8 THE FENWAY

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 1

January, 1921

$3 per year in advance
Single Copies, 25 cents

BOSTON MEDICAL LIBRARY
SEP 23 1922

WOMEN IN THE LEAD INDUSTRIES*

By ALICE HAMILTON, A.M., M.D.

Special Investigator, United States Bureau of Labor Statistics, and Assistant Professor of Industrial Medicine, Harvard Medical School

LEAD is by far the most common industrial poison, being responsible, according to Teleky,[1] for no less than 95 per cent of all the poisoning due to occupation. Layet[2] tells us that there are 111 occupations in France in which lead poisoning may occur, and at the time the Commission on Occupational Diseases in Illinois made its report (January, 1911), more than 70 occupations carried on in that State had been found to give rise to lead poisoning. Not only in Europe, but also in this country, industrial lead poisoning is a fairly familiar occurrence; but while in Europe women have been long employed in the lead trades and have suffered from the effects of lead, in America there have been but few women in such occupations, and lead poisoning among them is not at all common. Now, however, women are beginning to enter the occupations in which exposure to lead is inevitable, and it is very important to look carefully into the question of their employment in such occupations, and to determine whether it will be better to safeguard them by requiring employers to use every known means to reduce or eliminate the hazard of lead poisoning or by prohibiting the employment of women entirely in those occupations in which lead poisoning constitutes a considerable hazard.

What is Industrial Lead Poisoning or Plumbism?

It is well to begin with a brief description of what lead does to the human system. When a person is exposed to lead-laden dust, or habitually eats his food with lead-soiled hands, the poison accumulates in his system and usually attacks the digestive tract and the blood first. It seldom happens nowadays that very acute or severe forms of lead poisoning are caused by exposure to lead during work. Some years ago men did at times develop severe symptoms of colic and even convulsions after only a few weeks' exposure to lead dust in the smelters or white-lead works, or in storage-battery plants, or in enameling sanitary ware. But the improvements in factory hygiene that have been made of late years have caused such distressing occurrences to become almost a thing of the past. A typical case of industrial lead poisoning comes on slowly. The man acquires a peculiar pallor which foremen and workmen soon learn to recognize, and which is caused partly by poverty of the blood because of destruction of the red blood corpuscles, and partly by contraction of the surface blood vessels. He begins to lose his appetite, especially for breakfast, for his mouth is foul when he first gets up, and he may vomit if he tries to eat solid food. A peculiarly disagreeable sweetish taste is one of the early symptoms and increases the repugnance to food. Then he begins to lose strength, to get tired easily, and to have headaches, and pains in his limbs. He is almost always constipated, and this trouble increases till it may culminate in an attack of agonizing colic, with complete stoppage of the bowels. This so-called lead colic is what the men themselves and many physicians mean when they speak of acute lead poisoning, although a man has usually been suffering from lead poisoning for some time before the colic develops, and may be severely poisoned without ever having colic.

If, after an attack of acute lead colic, the man goes into more healthful work he will probably recover completely from the effects of the lead, though there are authorities who insist that even one attack leaves permanent, even if slight, changes in the blood vessels and in the liver. But if the man goes back to the same work he develops the chronic form of lead poisoning, with perhaps recurrent attacks of colic. Chronic lead poisoning is essentially a disease of the blood vessels, leading to degeneration of the organs, the liver, kidneys, and heart especially, to atrophy of

*Bulletin U. S. Department of Labor.

Digitized by Google

the digestive glands, and to premature old age.

With either the acute or the chronic form of lead poisoning there may be involvement of the nervous system. If the poison attacks the nerves and their endings, paralysis comes on, most commonly in the arms and wrists, sometimes in the shoulders and legs. If it attacks the brain there are severe headaches, disturbances of sight, dizziness or loss of consciousness, with convulsions which may be fatal, or which may be followed by mental derangement, more or less lasting.

These forms of lead poisoning are fairly easy to recognize, but there are others less clear. Indeed, there is no known poisonous substance which can give rise to such a variety of symptoms as lead. The rule laid down by specialists is that the occupation must always be considered in making a diagnosis of lead poisoning; that is, that if a patient is known to be working in lead, symptoms which would not be considered of great significance ordinarily must be taken seriously, because they may point to the beginning of lead poisoning. Oliver[3] says that pallor and sallowness, with metallic taste, especially in the morning, are common early symptoms. If the distaste for food is increasing, the individual should retire or be suspended from work, for it is one of the earliest indications that the resistance to lead has become diminished. Obstinate constipation and a sense of tiredness out of proportion to the amount of energy expended are also complained of.

The typical paralysis of the lead worker is known as "painter's palsy," because it is much more common in painters than in any other class of lead workers. It begins in the wrist, affecting the muscles that lift the hand, so that as it increases the hand tends to fall and hang helplessy, a condition known as "wrist-drop." The reason painters get wrist-drop is that they use the muscles of the wrist more than any others, and this overuse determines the localization of the palsy. Men who use other muscles, such as those of the shoulders or legs, get the paralysis in those muscles. Among white-lead workers weakness of the muscles of the leg and ankle is quite as common as weakness of the wrist, for these men do not make fine movements with the arms as painters do. They may also have a widely distributed paralysis involving the muscles of the trunk, back, and shoulders.

Lead poisoning of the central nervous system is a very distressing form, fortunately much less common now than it was a few years ago. It is more likely to develop after excessive exposure to lead dust, such as used to occur in the making of white lead and red lead, in mixing paste for storage batteries, in shaking lead enamel over red-hot bathtubs and sinks, in cleaning out the flues and bag houses of lead smelters, or even in putting lead glaze on pottery and tiles. The victim would suffer from something resembling an attack of epilepsy, or would become delirious and regain consciousness only partially or be out of his head for some days, or death might occur during the convulsion or during the unconsciousness that followed it.

Another form of lead poisoning of the central nervous system is very much more gradual in its development, and is seen chiefly in men who follow a lead trade for many years and suffer from a slow chronic poisoning. In such cases the blood vessels of the brain gradually harden, and the brain tissue is starved for blood, so that mental deterioration takes place, and the man becomes increasingly helpless and demented. It is among painters that this lead insanity most often occurs.

One more rather obscure form of lead poisoning should be mentioned—namely, the neurasthenia of chronic lead poisoning. According to Hirsch[4] this is quite a common condition, but one often not recognized by the ordinary physician. The victim suffers from obstinate headaches, from morning vomiting, and from pain that is not typical colic. He is depressed and irritable, sleeps badly, has tremors of the muscles, and is easily exhausted. Such cases are very apt to be regarded as ordinary neurasthenia, but they do not clear up unless the patient is taken away from lead work.

Lead lowers the resistance of the body to infections, especially such infections as tuberculosis and blood poisoning. Certain industries, as, for instance, the typographical trades, have always had a far larger proportion of tuberculosis than can be accounted for in any way except on the ground of a lowered resistance to tuberculosis caused by the absorption of lead. Suppurative inflammations also are more common among lead workers than among men not exposed to lead. The men themselves say that if a lead worker cuts himself the cut always festers, because the lead gets in and poisons the cut. What really occurs is that the germs of suppu-

Digitized by Google

ration get in and the tissues, being affected by the lead, do not offer much resistance to them.

Individual Susceptibility

The most superficial study of lead poisoning in industry is enough to show how widely men differ in their susceptibility to this poison. Every foreman knows that there are men who can stand hardly any exposure to lead, while others can handle it for years with impunity. In even the worst factories there are at least one or two old workmen who have apparently breathed and swallowed lead compounds for from twenty-five to forty years, and yet have remained apparently healthy. In one white-lead factory the records show that one of the employes began to feel symptoms of lead poisoning at the end of two weeks' time. He died of acute plumbism after five and a half months' work. In the same factory was a man who had worked in clouds of white-lead dust for thirty-two years, ever since he was a boy of 12, and had felt no ill effects.

Hirt, who had long experience in industrial lead poisoning, says that 20 to 30 per cent of all lead workers are not susceptible. Of the remaining 70 to 80 percent a little over one-half (about 40 percent of the whole number) sicken quickly, the others more slowly. This means that in every force of workmen there will be some who will be seriously injured by the poison if they remain in the industry, and who ought to be weeded out as soon as this fact is recognized; others who will not seem to be harmed by it at all, and still others who probably can be protected from poisoning if all proper precautions are taken, but who must be watched and examined by a physician occasionally to make sure that they are being adequately protected.

It is wholly inadmissible for employers to hold that because some employes of unusual resistance escape poisoning employers are not responsible for those who fall victims to it. Individual susceptibility plays a large part in many forms of sickness. If there is typhoid-infected water in a village of 500 inhabitants, there will not be 500 cases of typhoid fever, even though every one drinks the water. There may not even be 50 cases. But for all the typhoid fever that does develop, the infected water must be held responsible.

It may be well to give some illustrations of unusual susceptibility to lead poisoning. Such cases are not typical, of course, but they do occur often enough to make it necessary for us to take cognizance of them. For instance, painters usually do not develop symptoms of lead poisoning till after several years, sometimes even 15 or 20 years in the trade. Yet, out of 100 painters with lead poisoning whose histories were secured, 12 had sickened in less than a year's time. Among 167 cases of lead poisoning among smelters, the majority were exposed for more than three months before they became poisoned, but 18 sickened after only one to three weeks' exposure. Among 186 sanitary-ware enamelers the majority had worked for more than five years before they were poisoned, but 21 had worked less than six months. A white-lead worker in Philadelphia went to a hospital with acute lead poisoning after three days' emptying the dry pans in a very insanitary factory. Another very rapidly developing case was a bath-tub enameler who came down with lead colic after four days' work.

Work in a tin shop is not regarded as involving much danger of lead poisoning, yet a record was obtained of one tin-shop worker who was treated not only for lead colic, but for lead rheumatism and anemia, after only two months' work. A storage-battery worker, who mixed lead oxides into paste by hand, was a tall and strongly built man, who said that he had never been sick in his life before; but after two weeks' work he began to feel ill, with loss of appetite, headache, and digestive disturbances, and at the end of eleven weeks he went to the hospital with typical lead colic.

There are other instances which show an unusually severe reaction to the entrance of lead into the system. A Hungarian found in a Pittsburgh hospital had worked for four years in a paint factory near Pittsburgh. He came to the hospital with colic, vomiting, and diarrhea. He was emaciated, dull, and apathetic, understanding what was said to him, but answering sluggishly. He was anemic, with 70 percent hemoglobin; his limbs were soft and flabby; his muscles were wasted. The most serious change, however, was a general hardening of the arteries, one consequence of which had been hemorrhages into the retina, impairing his sight.

Another instance is that of a man who was employed in insanitary white-lead works for eight weeks. He also said that he had had no illness since childhood. He went to the hospital with colic, constipation, pains in his shoulders, arms and legs,

Digitized by Google

and increasing loss of power in the limbs. He remained in the hospital four weeks, and when discharged he had double wrist-drop and partial paralysis of the ankles. A strong, young Slavic workman was employed for five months pouring lead glaze over roof tiles. He began to feel sick, had a bad taste in his mouth, was nauseated, could not eat, felt weak, and "no good." He kept on working, however, for eight weeks more, and then one day, just as he had reached home after work, a violent attack of colic came on and he lost consciousness. This was followed by maniacal delirium for forty-eight hours, during which time he seemed to be in great pain. After this passed over he was dazed and confused, with loss of memory and impairment of vision, for about two weeks. His mind then cleared, but three months later he was still pale and had not recovered his strength.

It is a generally recognized fact, based on wide experience in the older countries, that the young of both sexes are more susceptible to lead poisoning than are fully developed men and women. Legge and Goadby[5] say with regard to this: "The clinical conclusions of appointed surgeons in the various lead factories would be, we believe, that the susceptibility of young persons is at least twice that of adults, and there is some ground for supposing that the tissues of an adult, when growth has ceased, more readily adapt themselves to deal with the absorption and elimination of poisonous doses of lead than do the tissues of a young person."

Lead Poisoning in Women

British observers who have had much experience with women exposed to lead in the white-lead industry, and even more in the potteries, hold that women are more susceptible to lead than are men. Oliver[6] says: "So far as occupation exposure to lead is concerned, my opinion is (1) that women are more susceptible than men; (2) that while female liability is greatest between the ages of 18 and 23 years, that of men is later; and (3) that, while females rapidly break down in health under the influence of lead, men can work a longer time in the factory without suffering, their resistance apparently being greater."

Legge and Goadby[7] also hold that women are more susceptible to poisoning by lead than men. Legislation in Great Britain has followed these authorities, and women are barred from some of the most dangerous lead work. On the other hand, the Germans believe[8] that the apparently greater susceptibility of women to lead poisoning is to be explained not by their sex, but by the fact that they are usually more poverty stricken than the men, are undernourished and obliged to do work for their families in addition to their factory work. Then, also, a woman's skirt and her hair collect the lead dust, so that she carries it home with her after work. Observations in the pottery industry in this country[9] seemed to bear out the German theory, for while a much larger proportion of women than of men were found suffering from lead poisoning in the East Liverpool and Trenton districts, it was also found that in these districts the men are members of a strong union, are well paid, and have good living conditions, while the women are unorganized, underpaid, poorly housed, poorly fed, and subject to the worry and strain of supporting dependents on low wages. In the unorganized pottery fields, in the tile works, and in the art potteries of the Zanesville district the men and women were in the same economic class, all making low wages, with everything which that implies, and here the rate of lead poisoning was slightly greater among the men.

Whether or not women are more susceptible to lead poisoning than men, it seeems to be true that they are more likely to have the nervous forms of lead poisoning than are men. Women suffer more from lead convulsions and lead blindness; men from lead paralysis and lead colic. The following are some figures that Prendergast,[10] a British physician, who practiced many years in the Staffordshire pottery district has published. They are based on 640 cases of lead poisoning:

	Men	Women
Colic	77.6%	69.8%
Paralysis	57.0%	30.0%
Lead convulsions	15.0%	34.9%
Blindness (total)	2.3%	7.7%
Blindness (partial)	3.5%	10.2%

But the most disastrous effect that lead has upon women is the effect on the generative organs. Women who suffer from lead poisoning are more likely to be sterile or to have miscarriages and stillbirths than are women not exposed to lead. If they bear living children these are more likely to die during the first year of life than are the children of women who have never been exposed to lead. This means that lead is a race poison, and that lead poisoning in women affects not only one generation, but two generations. Very striking proof of

Digitized by Google

this fact is given by English authorities on industrial disease. Legge[11] abstracted from the reports of British factory inspectors for the year 1897 the following statistics concerning women lead workers: Out of 77 married women, 15 never became pregnant. Of the 62 who became pregnant, 15 never bore a living child. Among all the 62 there were 212 pregnancies, but these resulted in only 61 living children; the stillbirths numbered 21, the miscarriages 90, and of the 101 children born alive, 40 died soon after birth.

Another striking report comes from the British factory inspection service. Oliver[12] gives the following figures:

	Miscarriages and stillbirths
100 mothers in housework	43.2
100 mothers in millwork, not lead ..	47.6
100 mothers in lead work before marriage	86.0
100 mothers in lead work after marriage	133.5

In a recent English publication[13] the case is described of a woman employed since marriage in making capsules colored with lead colors. She had been pregnant eight times, the children had all been born prematurely, and all died in the first year of life.

A French authority, Tardieu,[14] reported to the French Government, in 1905, that 608 out of 1,000 pregnancies in lead workers resulted in premature birth. In certain Hungarian villages, where pottery glazing has been a home industry for generations, children born of lead-poisoned parents are not only subject to convulsions, but, if they live, often have abnormally large, square heads, and this condition is associated with a lowered mentality.[15]

It is unnecessary to emphasize the importance of these facts. Every one will admit that a poison which may destroy or cripple a woman's children is a far more dangerous poison than one which only injures the woman herself. This is why it is necessary to forbid the entrance of women into the more dangerous kinds of lead work and to surround their employment in the less dangerous ones with all possible precautions.

Lead Compounds used in Industry, and their Comparative Danger.

Formerly it was thought that the more soluble a lead compound the more poisonous it is, but experience shows that the physical properties of a lead compound are also important. Of two compounds which are about equally soluble in human gastric juice, the dustier one is the more dangerous. English experts believe that a less soluble lead salt may be actually more dangerous than one which is more soluble, but less easily powdered. For instance, lead acetate is very soluble, but it has a disagreeable taste, so that the workman can not swallow it unawares, and it is sticky, not powdery, so that in handling it he is not exposed to dust-laden air. On the other hand, the oxides, the basic carbonate, the chromate, sulphate, and monosilicate are all dusty and some of them are very light and fluffy. They are also almost tasteless, and the workman who handles them dry breathes into his mouth and swallows quantities without noticing. The English authorities, Oliver, Goadby, and Legge, regard the lead salts as dangerous in proportion to their dustiness. They concentrate their efforts on the abolition of dust and with amazing practical success.

Probably the most poisonous lead compound used in industry is the suboxide (Pb_2O), that fine, light-gray powder given off in fumes from heated lead. This is so light that it is carried into the air by the waves of heat, and so finely divided that it is easily absorbed when breathed and swallowed. It is this oxide which causes poisoning in lead smelters, zinc smelters, brass molders, and, to a less extent, in workers with molten lead such as lead molders, lead burners, stereotypers, electrotypers, and those employed in making lead pipe and wire, sheet lead, shot, and the makers and users of solder. It is this same oxide that forms a grayish coating on solid lead, and rubs off on the hands. Men who handle solid lead sometimes get a very slow chronic form of poisoning from this oxide.

It is a question whether second place should be given to the higher oxides of lead, litharge (PbO) and red lead (Pb_3O_4 or Pb_4O_5), or to the basic carbonate, white lead. The last named is decidedly more soluble, and dose for dose it is more poisonous, but it is not so light and fluffy as red lead and litharge and it seems to be somewhat less harmful. In those American factories in which both white lead and oxides are manufactured, the rate of poisoning in 1911 was higher in the oxide than in the white-lead department and the average period of employment shorter.[16] White lead is much the best known of the lead salts, and probably is responsible for more industrial poisoning than the oxides, be-

Digitized by Google

cause it is used in great quantities in the painting trade and in the glazing of pottery, and its manufacture has always been considered one of the most dangerous lead trades; paint grinding, unless very carefully done, is also a dangerous trade. The oxides, litharge, and red lead are used very largely in making storage batteries, and they enter into the composition of rubber, glass varnish, certain kinds of pottery glaze, the enamel used on sanitary ware, and the paint used to cover iron and steel on bridges, ships, structural-iron work, and certain parts of railway cars.

Lead sulphate is beginning to displace white lead to a certain extent in paints. It is also used in compounding rubber, and is produced in large quantities when lead ores containing sulphur are smelted. It is not nearly so soluble as the lead compounds already mentioned, but it is poisonous and has given rise to a good many cases of plumbism in American industry. Lead chromate used in paint is about as poisonous as the sulphate. The least harmful lead compound found in industry is the sulphide, which makes up the greater part of the lead ore now being mined. This was long considered quite harmless, but we know now[17] that it can be absorbed by the human stomach and set up poisoning.

How does lead enter the body?

The popular idea about lead poisoning, held especially by foremen and superintendents, is that the workman poisons himself by eating his lunch without carefully washing his hands. There is not space to give here all of the experiments that have been made to test this theory, but is is safe to say there is abundant proof that lead dust and lead fumes, not lack of personal cleanliness, are responsible for most of the industrial lead poisoning in this country, as in all countries. If a man employed in lead smelting, for instance, were to get into his mouth every bit of the soluble lead that is clinging to his hands at the end of his day's work he would not get so much lead as he breathes in during two hours' exposure to the dust and fumes in the air.[18]

It may be laid down as an absolute rule that the dustier the work the greater will be the amount of lead poisoning. In the pottery trade in the United States the writer found one case of lead poisoning for every seven women employed in lead work, while in the British potteries the proportion of cases to those employed was only 1 in 64. The American women were scraping and brushing dry white-lead glaze, and letting it fly above in the air and fall on the floor and on their clothes and hair; the English women were scraping off damp glaze, and letting it fall into troughs of water. In the smelting industry the rate of poisoning among the blast-furnace men exposed to fumes and dust was found to be 31.1 per cent, and among the men who had to clean out the flues where dust is excessive, 62.5 per cent, while the refiners and desilverers handling pure lead but not exposed to much dust or fumes had a rate of only 14.3 per cent.

The lead dust and fumes (lead fumes consist of a very fine suspension of lead dust) do not produce their effect through the lungs, for less than one-fourth ever reaches the lungs. The rest is caught in the nose and throat, is mixed with the mucous secretions, and is swallowed.[19] Absorption through the skin may be practically ignored in considering industrial lead poisoning. In England, under the leadership of Oliver, Legge, and Goadby, all of the efforts of the Government inspectors are directed toward the prevention of dust and fumes and provision for through washing before meals and at the end of work. In the summer of 1910, during a visit to three white-lead factories in England, the writer observed men smeared with white lead up to their shoulders, but these men were made to wash thoroughly at noon and when they quit work. In the whole district of Newcastle-on-Tyne, where 1,320 men were employed, there were only 5 cases of lead poisoning during that year. The German regulations of the lead industries are also based on the theory that lead enters the body by way of the mouth, not the skin. In France, Gauthier[20] reported in 1901 that "while out of 1,000 white-lead workers who work with wet white lead, 50 have had lead poisoning; of 1,000 who handle it dry, or grind dry lead in oil, 105 have had lead poisoning.

Lead industries in the United States.

American industry differs a good deal from industry in other countries, and it is not safe to assume that what European writers say about the dangers of certain kinds of work is true of the same sort in this country. What follows relates closely to American experience, though sources of information are scanty.

It is impossible to give a list of all the occupations in the United States which involve exposure to lead in some form. Every

Digitized by Google

year cases of lead poisoning from hitherto unknown sources are reported in the medical journals. Aside from the well-known lead industries, there are certain ones which are not ordinarily thought of as lead trades, yet which involve quite as much poisoning as do the more familiar ones. For instance, in the enameling of sanitary ware a very high rate of poisoning was found, sometimes even 36 per cent, a rate hardly equaled in any other industry. Lithotransfer work is recognized in Europe as a dangerous lead trade, but its danger is so little known in this country that cases of lead poisoning due to it are sometimes not recognized. Of five girls who were treated in a public hospital for supposed appendicitis (two of them even were operated on because of this mistaken diagnosis) all had been poisoned with lead from the colors they dusted on the lithotransfer paper. Many cases of brass poisoning have been reported which proved on investigation to be lead poisoning. Brass contains varying quantities of lead, and when brass is poured the thick white fumes which rise and fill the room contain lead oxide. A few instances have been observed of brass polishers becoming poisoned with lead, because the exhaust on their wheels did not carry off the dust, and this dust contained lead.

Lead colors are known to cause poisoning in makers and handlers of artificial flowers and of wall papers. Commercial artists, whose work is retouching photographs for catalogues and advertisements, often use white lead paint, frequently in the form of a very fine spray, without knowing that it is poisonous. They also have a habit of bringing their brush to a point by sucking it. Their physicians do not know that they have been exposed to lead when they complain of colic or weakness of the wrists. Fifteen cases of lead poisoning were found among members of this profession in Chicago, one of whom had died palsied after having had three abdominal operations on various wrong diagnoses.

Another source of lead poisoning, not usually recognized, is the polishing of cut glass with so-called putty powder, which is composed of 3 parts oxide of lead to 1 part oxide of tin. This powder, made into a paste, is applied to the glass, and the glass is held against a polishing wheel, so that the thin paste scatters in all directions and dries and forms a light dust. E. E. Pratt,[21] of the New York State Factory Investigating Commission, found many cases of lead poisoning from the use of lead as a hardening tempering agent, especially in the making of magnetos. The steel magnets are hardened in a bath of molten lead, plunged into water to cool, and then rubbed with sandpaper to remove the lead. A similar process is used in the making of piano wires and springs. Pratt also found lead poisoning in linoleum and oilcloth manufacture, for litharge is used in compounding and the paints consist largely of lead colors.

(Concluded in next number.)

BAD INDUSTRIAL CONDITIONS FOR WOMEN IN JAPAN

The World's Young Women's Christian Association writes:

"Perhaps in no country is the Association needed more by factory girls than in Japan, where the conditions of work are extraordinarily trying. Every year 200,000 girls are recruited from country districts and enter factories for the first time. Seventy percent of them live in dormitories attached to the factories. A thousand to three thousand girls may be housed in the building, divided into wards of 250 to 500 each, under the supervision of a matron. A room in one of these wards may vary from 20 to 60 yards square, and will contain from 10 to 30 mats for the girls to sleep on, thus allowing only two square yards or less to each girl. The rooms are usually dark and poorly ventilated, and in smaller factories are built over the noisome steam and foul air of the workrooms. In large factories the girls have to work in day and night shifts, both shifts using the same room and the same bedding from one year's end to another.

"Needless to say, such conditions work havoc among the employes. Out of the 200,000 before mentioned, 80,000 return home within a year—13,000 of them suffering from serious illness. Fortunately some of the larger factories are now beginning to improve conditions, and there are a few factories conducted on modern lines."

Sectional school houses are in use in Minneapolis, built with a view to eliminating the unsatisfactory features of the ordinary "portable" school buildings. They are made in separate sections, which can be easily put together or taken apart, of standard size, with approved window space, ventilation system, equipment, etc., and with walls of sufficient thickness to be adapted to eliminate conditions.

Digitized by Google

A DISCUSSION OF MEDICAL PRACTICE RELATING TO HEALTH CONSERVATION*

By S. S. GOLDWATER, M.D.,
Director, Mount Sinai Hospital, New York City

Of the problems confronting medical schools at present none is more serious nor more difficult of solution than the problem of the crowded curriculum.

As specialism and "group medicine" have steadily developed, schools and State Board of Licensure have extended the list of required studies in an endeavor to assure that every young physician shall have on graduation at least an elementary conception of the so-called medical and surgical specialties.

In this cramming of the undergraduate curriculum with short courses in the specialties, the necessity for a fuller understanding of, and approach to, the personal health problem of the whole human individual is frequently lost sight of.

The following paper by Dr. S. S. Goldwater, Director of Mt. Sinai Hospital, New York City, presents a point of view in relation to this situation which demands thoughtful consideration.

Can we solve our curriculum problem as is here suggested by training physicians for service along one or another of the three indicated lines of medical service, and thus provide in our communities for the accomplishment more satisfactorily of the aims which are constantly before the medical profession, the alleviation of the sufferings of the old and incurably ill; the treatment and cure of the acutely sick, the detection and arrest of incipient disease; and that newest of our medical ideas, the conservation of the health of the well.

The paper merits the attention of every woman concerned with the future of the medical profession, and woman's part in that future.

Dr. Goldwater has kindly given his consent to the reprinting of his paper.

MARTHA TRACY,
Dean, Woman's Medical College of Pennsylvania, and
President, Medical Women's National Association.

The power of physicians to control the conduct of men is greater than that of any other class; it is not fully exercised because medical education is defective. The medical profession itself must study habit, character, and environment and assume leadership.

Sympathy and understanding, which physicians often lack, enable quacks and healers to make great inroads on medical practice, and the widespread influence of the family physician, supported by the health department, the hospital, the diagnostic center, the trained nurse, and the health visitor must be restored. Unless medicine is reformed, America will lead in quackery as well as in scientific medicine.

WHAT are the most important services that physicians can render?

Answer.—They are four: The first is to conserve the health of the well; the second, to detect and, when possible, to arrest incipient disease; the third, to restore the sick to health; and the fourth, to ease the sufferings of those who are sick, injured, old, or feeble.

Question.—Is the relative importance of these important functions generally recognized?

Answer.—It is not. In the medical schools the attention of instructors is fixed mainly on diseases having a definite pathology; it is to the diagnosis and treatment of these diseases that most time and thought is given, after indispensable preliminary instruction in the underlying physical and biological sciences. The brief courses that are given in preventive medicine and personal hygiene do not begin to do justice to these subjects, and the whole atmosphere of the school prompts the student to follow in the footsteps of teachers who have won fame and fortune, either as skilled laboratory workers or as clinical specialists.

Question.—You will nevertheless concede that remarkable progress in preventive medicine has been made in this country within the memory of men now living?

Answer.—True; but for this the medical schools can claim only part of the credit. A large part of what has been accomplished has been due to the efforts of sanitary engineers and social workers, untrained in medicine. Moreover, the prog-

*Reprinted by permission from "Modern Medicine," June, 1920, Vol. II, No. 6.

Digitized by Google

ress that has been made is not enough. Those who regard the conservation of health as the foremost of human interests are far from content with what has been accomplished in preventive medicine. Certain communicable diseases have been either stamped out or brought well under control; while others, including the virulent and frightful pandemic disease that in 1918 destroyed from eight to ten million lives, continue utterly to baffle science. Then there are such diseases as syphilis, gonorrhea and malaria — theoretically in the "preventable" class—and diseases susceptible either to arrest or control, such as tuberculosis, cancer and diabetes, diseases of the heart, blood vessels and kidneys, diseases of the digestive tract, or of the nervous system, the actual control of which is far from satisfactory, owing to the lack of personal co-operation.

Question.—To what do you attribute the want of co-operation? Are people not properly instructed in regafd to the transmission of causation of such diseases?

Answer.—They are not. Physicians, who alone can do this teaching as it should be done, whose potential power to control and direct the conduct of men is greater than that of any other class, of whom it may be said that they hold the key to happiness itself, are themselves not properly taught. They scarcely realize the splendid opportunities that are theirs.

Question.—You appear to have in mind the further accentuation of public health education. If the efforts heretofore made have been unsuccessful, there must be a reason. What is it?

Answer. — Health organizations, both public and private, have attempted to educate large numbers of people by means of tracts and lectures. Latterly, health departments and numerous private organizations have tried by these means to popularize the principles of personal hygiene. However, it is well known that the application of the rules of hygiene must be varied with each individual, and most health officers are now ready to acknowledge that but little further progress is likely to be made except through the better ordering of individual lives by the people themselves. Health departments, unfortunately, can not through existing machinery sufficiently influence the average man. As for private organizations which are active in the health movement, they are successful in their teaching only in proportion to the volume of their personal work, which is far from being adequate. Meanwhile the great mass of the medical profession fail entirely to adopt the point of view or the methods of health conservation.

Promote Art of Right Living

Question.—You say that most physicians contribute nothing to health conservation. Are there any typical exceptions?

Answer.—The physician who is doing most to guard the health of his clients is the old-fashioned practitioner who watches over whole families, attending to their minor ailments as conscientiously as to their graver maladies, and accepting the duties of friend and confessor as well as the particular role which his professional training and title assign to him. He knows the heredity of his patient, the diseases through which he has passed in infancy and childhood, the consequences of these diseases, his personal habits, his occupation and home surroundings. He is a psycho-analyst by intuition, if not by training. Sympathy and common sense oftentimes serve him in the absence of any systematic knowledge of social science. To the great consultants and specialists, the intimate personal history of their patients, their spiritual and mental lives, are unknown and afford no particular interest. It is for this reason that specialists sometimes prescribe treatment which falls wide of the mark, and even excites ridicule.

Question.—Is this true of all classes of specialists?

Answer.—No. For example, psychoneurologists are beginning to inquire into certain phases of personal experience which play a role in the production of nervous and mental symptoms. Through their work and writings, and that of their coworkers, the psychologists, popular interest has lately ben aroused in mental hygiene. This interest is a good thing; but what is needed is a deep and widespread interest, not in mental hygiene merely, but in the development of all of man's powers, in hygiene itself, in the long but by no means hopeless fight to gain for each individual the full enjoyment of health.

Question.—You said a moment ago that both private and public health organizations had attempted to teach hygiene by means of lectures and tracts. Have they not also employed health visitors, and do not health visitors inculcate ideas of right

Digitized by Google

living, the importance of which you emphasize so strongly?

Answer.—Yes; public health visitors are doing splendid work. They would do still better if they were equipped with expert knowledge and were trained teachers, which, as a rule, they are not. Nevertheless, to some classes of people the public health visitor is able to speak persuasively, even with a semblance of authority; but there are not enough public health visitors to reach all of those who are open to their influence, and there are many groups so constituted mentally or so placed socially that they can not be reached by public health visitors at all, but who could be reached by physicians if only physicians could be induced to regard every patient as a pupil in need of instruction in the art of right living.

A Working Agreement Necessary

Question.—Can not the health visitor and the physician combine? As a matter of fact, do not physicians readily co-operate with health visitors?

Answer.—Occasionally they do; more often they do not. When the services of a hospital social worker, whose functions are in large part those of a health visitor, are placed at the disposal of a group of physicians in hospital or dispensary, they are accepted eagerly by a few, grudgingly by others, while by most they are flatly rejected. Read carefully the reports of hospital social workers, and you will be astonished at the herculean efforts that they have to make in order to establish themselves in the good graces of the doctors. Between the lines of nearly every such report may be read the story of an up-hill struggle to interest the medical specialists of hospital and dispensary in facts of heredity, of habit, of character of environment, which play such important roles in dulling the edge of existence, in lowering vitality, in defeating the attempt to win back life in all its marvelous fullness and richness of emotion, experience and delight. A dozen years ago Richard Cabot expressed the opinion that it was not worth while for any outsider to establish social work in a hospital unless some physician in that hospital had already become aware of his need of such help. "The doctor must first have felt the difficulty of finishing the work which his diagnostic studies begin, or of carrying into effect his desire to go to the bottom of his cases, to find their cause—physical, chemical, hygienic, financial, domestic, emotional, or whatever it may turn out to be—and to root it out."

Question.—And do you, then, disagree with Dr. Cabot?

Answer.—I am disposed to believe that Dr. Cabot did not go far enough. In the long run, I think, attempts to interest the busy hospital surgeon, who is keyed up to the requirements of great emergencies, or of the learned internist, who is intent upon some obscure phase of pathology, in the "social, financial and physical background out of which individual cases of disease emerge momentarily, and quite misleadingly, at the hospital," will fail. I do not at all deplore this, for the minds of these men are occupied with other things, and are so occupied to advantage. Here are men who, as a rule, will not and should not be distracted with questions that are entirely foreign to their daily thought, occupation, and experience; questions to which their painfully acquired special skill and knowledge can contribute little or nothing of value. I believe that the time has come for hospital social workers to cease tagging after and trying to capture the interest of the medical specialists, for the chase is long and arduous, and the prize, if it could be won, is not worth the effort.

Question.—Do you mean that you are opposed to the growth of specialism in medicine?

Answer.—Not at all. The greater the number of specialties, the more skillful each specialist in his own sphere. However, the specialist can not escape the defects of his qualities; the closer his study of pathology and symptomatology, the greater his technical ability as a surgeon or specialized therapeutist, the less his comprehension of heredity, character and environment. The modern hospital or diagnostic clinic functions beautifully up to a certain point, but it does not function completely in a medicosocial or medicopsychological sense. The "system" has no eye to see or mind to perceive the human being behind the "case" with which its organization and records are chiefly concerned. It does not give adequate personal service.

Has it never struck you as singular that, while medicine apparently has been growing more and more efficient, an ever-increasing number of sufferers has been getting out of step with the regular medical

Digitized by Google

profession and into step with all manner of quacks? An immense territory which should be controlled by educated physicians is in the possession of "fakers" who often supply what highly trained doctors fail to furnish, namely, that sympathy and understanding, which are frequently needed in diagnosis, and which often tend to restore a patient's confidence in himself and his future. See how many different people are attempting to do the physician's job! Among others there are the serious-minded and helpful but only half-trained social worker, the untrained Christian Scientist, of dubious reputation and influence; and, in addition to these, a hundred varieties of pretenders, whom I shall not dignify by naming them. Medical investigators score victory after victory over our common enemies, the bacteria; hospitals are added to hospitals; ambitious schools of hygiene and public health are established and proclaimed as the centers of new thought and the inspirers of new achievement in medicine; health visitors go into the homes of the poor, teaching as well as they can the important facts of life; but the medical profession steadily loses ground. How can physicians take pride in their profession while children remain poorly nourished, adolescents acquire vicious habits, young women become neurotic, and young men grow old before their time?

New Life in Old Service

Question.—And what remedy have you to suggest?

Answer.—Nothing less than the rearrangement of medical practice itself. Public health administrators must cease to depend on the tract or even on the health visitor to do the doctor's job. The hospital social worker must abandon her efforts to make the hospital organization do what it is not by its nature fitted to do. We can not by mere legislation suppress the humbugs who worm their way into the confidence of the ignorant; they will continue to succeed until somebody better and more capable offers the help that is needed. The hope of universal health conservation can not be realized without a new kind of medical service—an old order of service really, but an old order renovated and enriched by the application of new knowledge. Before medicine can function efficiently and completely it will be necessary to restore to life and to widespread influence the family physician, modernized and powerfully supported by precious instrumentalities which were not at the command of the family physician of an earlier generation.

Question.—What are the instrumentalities that you have in mind?

Answer.—They are: (1) A progressive department of health and welfare to fight off the big dangers that can only be dealt with through the exercise of public power—such dangers as the polluted water supply, epidemic diseases, the filth of the city, and the greater but less conspicuous filth of the country; and all the dangers to life and limb that lurk in modern industrial society. (2) Centers for the study and diagnosis of obscure diseases, commanding the best specialized clinical and laboratory aid. (3) Hospitals for the acutely sick, equipped to carry out diagnostic, therapeutic and nursing procedures which can not be conducted as well as elsewhere. (4) Nurses qualified to attend the sick in their homes. (5) Health visitors for the well and the near-well, who are ever pursued by sickness which is always ready to strike the unwary.

Question.—What sort of training do you propose to give to the family physician? Is he to study medicine as it is now taught in our best medical schools?

Answer.—The physician who undertakes the kind of practice that I have in mind will require, in addition to the teaching current in the medical schools, an ampler knowledge of hygiene, an understanding of eugenics, a thorough knowledge of the psychology of character and habit and a command of those phases of social science which have a bearing on the health of individuals. Above all, he will need to be inspired by an instinctive love of man. "Intelligence and instinct are turned in opposite directions; the former toward inert matter, the latter toward life. Instinct is sympathy. It is to the very inwardness of life that instinct leads us."

Question.—In what manner will the "family" physician of the future practice?

Answer.—He may practice individually and be effective, provided he is ready to call to his assistance, when he needs them, the agencies which I have just enumerated. The rich will profit by his sympathy, skill and strategy no less than the poor. Much of his best work will be done, I think, in the district "health center" of the future, which the hospital and diagnos-

Digitized by Google

tic clinic will serve as important laboratory aids. His principal object will be the conservation of health; his method, the method of personal service. He will look and call upon the members of the hospital staff as a high order of technicians, just as the internist and the surgeon now utilize and prize the services of the skilled bacteriologist, pathologist, chemist and radiologist.

Train Three Medical Groups

Question.—But in order that all this may be brought about, medical education will have to be completely recast?

Answer.—Yes; for the future order which is here outlined three groups of medical men will have to be trained: (1) The consulting or hospital group, including the present laboratory workers, experts in the detection and classification of morbid processes—doctors of disease, the basis of whose art is pathology; (2) The public health doctor, to whom belongs the prevention and control of epidemics, the practice of sanitation and public hygiene, and the important task of public health education; and (3) The health doctor or body physician, whose aim will be the conservation of the health of the individual and who must have an ample knowledge of medicine, the skill to seek out and the strength and cunning to control all the forces that impinge on the life of the individual, threatening him with injury to body, soul or mind.

Question.—And when all this has been accomplished, what will become of "hospital social service?"

Answer.—There will be no "hospital" social service. The hospital will confine its efforts to the cure of the sick, the study of disease in its more pronounced manifestations, the teaching of clinical and laboratory medicine, and the training of nurses. Lectures and tracts alone will not usher in an era of health conservation. The rules of hygiene vary in their application, and personal instruction is indispensable. The medical profession itself must assume leadership. Medico-social work will fall naturally into the hands of the group of physicians whose place in the new order I have tried to make clear. The headquarters for the organized efforts of this group will be the district health center to which health visitors will be attached as skirmishers, investigators, propagandists and aids.

Question.—How soon will the changes in medical practice that you predict take place?

Answer.—The first contingent of the new order has already arrived; its members are establshing themselves in various parts of the country as the medical officers of health centers, health clinics, and industrial groups.

Question.—And are these men fully qualified to conserve health by all possible means?

Answer.—Unfortunately they are not; but what the newcomers lack in special training they make up to some extent in intelligence, energy and enthusiasm. This first regiment is a regiment of volunteers, of the finest moral quality, but self-trained and compelled to advance into unknown territory, laboriously feeling its way. The future army will consist of trained regulars whose important tasks in human conservation will be mapped out for them in advance and whose education, skilled leadership and perfect organization will insure their success.

Question.—I am disposed to accept your prophecy, but what will happen if we should both be mistaken and the changes which you foretell do not materialize?

Answer.—In that case medicine will go forward in knowledge, but backward in usefulness. It will develop intensively as science, but not extensively as practice. We shall witness the further refinement of diagnosis and of specialized treatment, the intrenchment of scientific medicine in citadels of research and learning, but the great mass of the people will gather outside of the walls, the easy prey of charlatans. The leadership of the world, which is the goal of American ambition, will be achieved; strangely and unexpectedly, however, it will be a dual leadership—a leadership in scientific medicine and in quackery. Is it conceivable that the practical genius of America will tolerate such a paradox?

Because of the high infant mortality rate among children of working mothers in Japan, the expert adviser of the Department of Agriculture and Commerce has proposed definite plans for the care of mothers before and after child-birth, and for providing opportunity for the nursing of the baby.

Digitized by Google

Special Article

[Written expressly for the Journal]

THE SHEPPARD-TOWNER BILL

A BILL for the protection of maternity and infancy is now before the Congress of the United States. This bill provides for a Federal appropriation to be given to the States which undertake public measures for the protection of mothers and children. The amount of the appropriation is to be $2,000,000 for the first year, the sum to be gradually increased until it reaches $4,000,000 annually. It will be apportioned among the States in the proportion which their population bears to the total population of the United States, provided that each State appropriate a like sum. In addition to this sum, the bill provides for an annual appropriation of $480,000, to be divided equally among the States without guarantee of a like sum.

The Act is to be administered by a Federal Board of Maternal and Infant Hygiene. This Board will consist of the Surgeon General of the U. S. Public Health Service, the U. S. Commissioner of Education, the Secretary of Labor and the Chief of the Children's Bureau as executive officer. Plans for State work must be submitted to and approved by this Bord.

The administration of the Act in the States will be in the hands of the Child Hygiene or Child Welfare Divisions of the State Boards of Health in the States having such divisions. In the States which have not already provided such divisions provision is made for a State Board of Maternal and Infant Hygiene, which may function until the Legislature has established a child hygiene division. The Federal Board may require the co-operating State Boards to appoint advisory committees, both State and local, to assist in carrying out the Act. At least half of the members of these committees must be women.

The work done under the Act must include instruction in the hygiene of maternity and infancy through public health nurses, consultation centers and other suitable methods, and the provision of medical and nursing care for mothers and infants at home or at a hospital when necessary, especially in remote regions. The Act provides for the co-operation of the State Board with the State Universities or Land Grant Colleges in furnishing popular, untechnical instruction in the hygiene of maternity and infancy and kindred subjects.

This bill has been favorably reported by the Senate Committee on Public Health and Quarantine.

The conditions which the Sheppard-Towner Bill seeks to correct are only too well known to the profession. In 1918 23,000 mothers in the United States died from causes connected with childbirth, and nearly a quarter of a million babies died under one year of age. While the number of maternal deaths in 1918 was increased by the epidemic of influenza, the figures for 1919 show that nearly 18,000 women died last year from causes incidental to childbirth. Most of these deaths are preventable.

Other countries show markedly lower death rates of babies and of mothers in childbirth. It is safer to be a mother in sixteen important foreign countries than in the United States, and babies have a better chance in ten foreign countries than in our own.

The death rate of mothers from causes connected with childbirth is not decreasing in the United States. During the past twenty years the typhoid rate has been reduced two-thirds, the tuberculosis rate markedly reduced, the diphtheria rate reduced more than one-half, but there has been no decrease in the maternal death rate.

About two-fifths of all infant deaths occur within three weeks of birth, and these early deaths are due chiefly to the condition of the mother and the lack of proper care and instruction of the mother during pregnancy and confinement. Maternal deaths and infant deaths from maternal causes are not decreasing because mothers do not yet have the skilled care and advice that they need.

The protection of the child must begin with the protection of the mother. Care during pregnancy and confinement and in-

Digitized by Google

struction in the hygiene of maternity, infancy and childhood must be made available for all mothers through such agencies as prenatal clinics, maternity hospitals, maternity care in the home, children's health centers, and systems of public health nursing adequate to reach every mother and child.

This neglect of maternity and infancy leads not only to thousands of preventable deaths, but to lowered vitality and permanent impairment of health and efficiency for thousands of women and infants who survive.

In certain cities a beginning in the right direction has been made through the visiting nurse, the prenatal clinic, the hospital receiving maternity cases, and the infant welfare or child health centers. But in no instance has the need for such facilities been fully met. Moreover, the wives of self-respecting men in the lower income groups who will not accept a private charity and who can not afford the cost of adequate care and instruction from physicians and nurses in private practice are usually unable to secure the protection that modern science might give them and their babies.

In scattered and isolated rural districts the situation is far more difficult. In studies made by the Children's Bureau of conditions in six rural districts it was learned that 80 percent of the mothers had received no advice or trained care during pregnancy, and many mothers had no trained attendance of any kind at confinement. Hospitals, doctors and nurses were often so far distant that the expense was prohibitive. In these districts, where advice and supervision during pregnancy and better care at confinement are most urgently needed, there is little prospect of providing adequate care until the problem is recognized as a national problem, and met in a national way.

Announcement that alteration of the scope of American Red Cross relief operations in Europe is now well under way to the end that they may be confined almost entirely to desperately needed medical assistance for children, was made at National Headquarters this week. To carry out this program, the Executive Committee has voted an appropriation of $5,000,000 from the reserve fund of the society.

Making it clear that this work is supplementary to the feeding and clothing plans of the European Relief Council, of which the American Red Cross is a member organization, Dr. Livingston Farrand, Chairman of the Central Committee of the Red Cross, said:

"It should be distinctly borne in mind that the work which the American Red Cross aims specially to carry on is in the interest of children who require medical care. This work should not be confused with that of feeding several millions of children who are not afflicted by disease, but who are threatened with starvation. The general feeding problem is to be met by the European Relief Council, composed of eight leading relief organizations. The American Red Cross, of course, is vitally interested in seeing this relief work made effective, but as an organization its efforts will be directed primarily to the medical and nursing needs. Such other relief work as it performs will be that necessary to supplement or assist its particular objective."

Nearly twenty child relief units of the American Red Red Cross are already in the field, Dr. Farrand stated, most of which are in Poland, where the greatest distress exists among the child population. Within a few months it is expected that fifty such units will be in full operation, and that ultimately there will be at least a hundred. Plans for the work embrace the Baltic States, and to a certain extent Austria and Hungary, as well as Poland and adjacent countries and Jugo-Slavia. The general plan of organizing these units provides for a doctor, several nurses and a trained social worker for each unit. Wherever possible, local personnel will be utilized. In all cases the Red Cross effort is directed toward building up in the community, in collaboration with the public authorities and local organizations, permanent, constructive measures for saving child life, which will remain effective when the Red Cross finally withdraws.

The Junior Red Cross will continue to carry on its distinctive work for the needy children of Europe in accordance with its program launched soon after the armistice. This work, while co-ordinated with, is not included in the new endeavor.

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association Headquarters, 637 Madison Ave., New York

A REMARKABLE REPORT

[The accompanying report of the work done by this small group of A. W. H. workers is amazing. We print it in full, as we feel our readers, and particularly the members of the National Association, should see the actual figures showing the vast amount of work accomplished by the members of their committee in Serbia.]

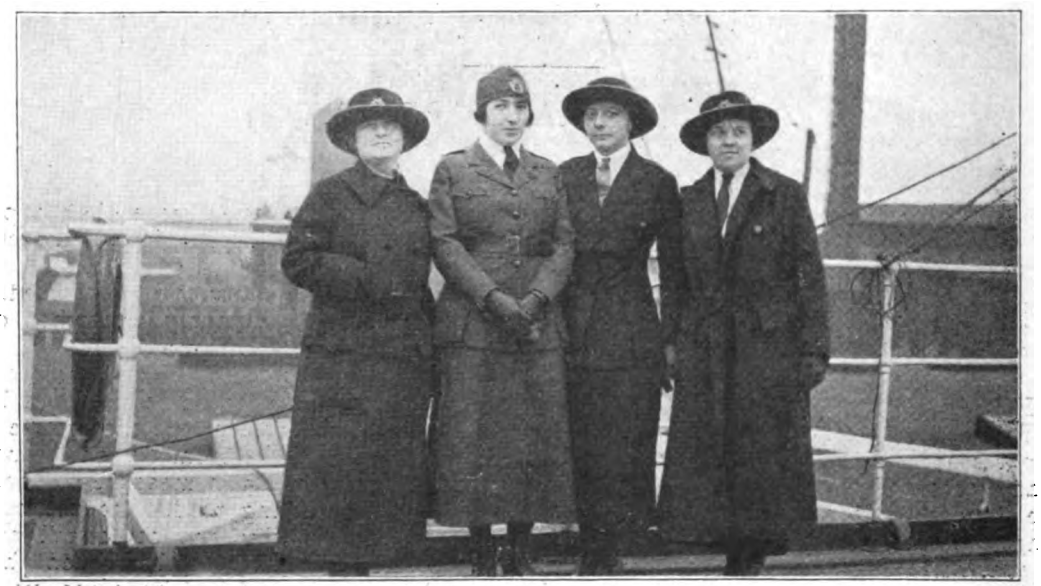
THE American Women's Hospitals in Serbia are sending in wonderful reports at this time regarding the work already accomplished. Things, of course, were slow in the beginning, and it is interesting to note the increase of work which has evolved as months have gone by. The October report is the latest report, and this one month alone would more than justify the trouble and expense of the entire enterprise. You will notice that 110 eye operations were done in October. Many of these were for cataract, and Dr. Etta Gray, Surgeon-in-Chief, reports that sight has been restored to a great many people who have been blind for years. Four hundred and twelve operations were done during the month of October. Many of them, as you will note by the tabulated list, were major operations.

Dr. Mabel Elliott, who sailed for Armenia in October, has reached Constantinople in safety. She passed through Serbia and reported on the work there as follows: "I can not say enough for the work Dr. Gray is carrying on here. I was certainly intensely interested in the preventorium. It is really more than a preventorium; it is a hospital for all the children that are really sick. It is certainly one of the finest pieces of medical work that could be done. And when one stops to consider that practically all the children there with really preventable conditions, would be allowed to go from bad to worse if this place was not there to take them in and fix them up, one's imagination can not begin to measure the benefit. It is interesting to see, as the cases came in, how easily one could tell at a glance the children who had been there for a little while and had benefited by the care of the hospital. Some of the cases who had not been seen by Dr. Gray for a number of days she found difficulty in recognizing they had improved so much. Dr. Gray is most anxious to continue this work and to start and continue the training school for nurses that she wrote about before, after the rest of the work is closed there. The figures she gives are certainly very reasonable as far as the preventorium is concerned, and I can well see how interested she might be in continuing it; for I find my mind going back to it continuously, and thinking what it would mean to have such a place in operation for a length of time. I suggested to Dr. Gray that she write you again in detail, both about the training school and the preventorium, stating her plans and giving you an estimated budget.

Digitized by Google

Dr. Marguerite White, of Chicago, sailed for Serbia on December 22d, where she will work with Dr. Gray until she is called by Dr. Elliott to assist with the work in Armenia. Dr. White is a graduate of the University of Illinois; 1912 and up until the spring of 1916 was associated with Prof. Carl Beck, of the North Chicago Hospital. In 1916 she joined the British Army, and was sent at first to Malta, "Mediterranean," which was at that time the hospital base for the Near East, and was in easy reach of the battlefields there. In Malta Dr. White was appointed chief of staff of St. Elmo Military Hospital of 500 beds. Upon returning to Chicago, the latter part of 1919, Dr. White accepted the position as Chief Assistant Surgeon to Professor Beck, where she remained until she sailed to join the American Women's Hospitals' service in Serbia and the Near East.

Herewith is given a picture of the unit that sailed on November 23d. Dr. Bercea served with the American Women's Hospitals in Serbia for about eighteen months, and then returned to this country for a short visit. She is one of those who made a record for herself and for this organization."



Miss Legge, Dr. Bercea, Mrs. Power, Miss Ryan

AMERICAN WOMEN'S HOSPITALS

Monthly Report for October, 1920, of Work in Serbia

	Admissions
Preventorium—Veles	43
Hospital—Veles	104
Hospital—Pristina	35
Hospital—Prilep	29
Hospital—Strumetza	201
Total hospital admissions	412

	Days of Hospitalization
Preventorium—Veles	1747
Hospital—Veles	1295
Hospital—Pristina	....
Hospital—Prilep	....
Hospital—Strumetza	1260
Total days of hospitalization	4302

	Operations
Preventorium—Veles	0
Hospital—Veles	27
Hospital—Pristina	4
Hospital—Strumetza	214
Hospital—Prilep	4
Total number of operations	249

Operations Performed:	
Eye operations	110
Mastoid	9
Tonsils and adenoids	85
Nasal operations	6
Bladder stone	1
Gun-shot wounds	5
Plaster casts	6
Incision knee-joint	1

Digitized by Google

Herniotomy	5
Adhesions of mouth	1
Lacerated lip	1
Hare-lip	1
Decrompression of skull	1
Abscesses—incision and drainage	6
Hæmorrhoids	1
Contracted fingers	1
Talipes equinus varus	1
Wry-neck	1
Adenitis	4
Abdominal exploration	1
Cystic goitre—Mayo operation	1
Osteomyelitis—currettement	1

Unoperated Surgical Cases:

Harelip	1
Carcinoma of stomach	1
Tumor of cornea	1
Compound fracture of tibia	1
Elephantiasis	1
Retroversion	1
Cystic goitre	1
Fractured hip	1
Ununited fracture of tibia	1
Fractured tibia	1
Compound fracture tibia	1
Fracture of femur	1
Spinal injuries	1
Sprained wrist and shoulder	11
Sprain of left leg	1
Sprained ankle	1
Wry-neck	1
Hæmorrhoids	1
Fecal fistula	1
Fractured skull	1
Salpingitis	1
Ostitis	2

Medical Cases:

Chronic malarial ascites	2
Bronchitis	1
Keratitis	1
Tetanus	1
Syphilis	2
Gonorrhœa	2
Nephritis	5
Typhus—convalescent	1
Malaria	31
Erysipelas	10
Pneumonia	5
Military tuberculosis	1
Diphtheritic paralysis	1
Anæmia	21
Pulmonary tuberculosis	1
Blackwater fever	1
Rheumatism	1
Pleurisy	1
Feeding cases, babies	2
Endocarditis	6
Myocarditis	1
Tonsilitis	1
Stomatitis—cases	1
Tubercular synovitis	6
Psoas abscess	1
Tuberculosis, foot	1
Tuberculosis, hip	1
Congenital dislocation hip	1
Ascares lumbricoides	1
Malnutrition	5
Infected root of penis	1
Lupus	1
Impetige	1
Enuresis	1
Chronic purulent otitis media	2
Potts disease	3
Adenitis	2
Suppurating adenitis	2
Enlarged spleen	5
Furunculosis	1
Undescended testes	1

Dispensary Reports

Stations	New Cases	Old Cases	Total Cases Seen
Veles	936	1243	2179
Pristina	277	376	653
Prilep	863	1777	2640
Strumetza	...	....	2600
Totals	2076	3396	8072

Diagnosis of New Cases Seen (exclusive of Strumeta report):

Asthma	2
Ascites	3
Abscesses	13
Adenitis—	
Simple	3
Suppurative	5
Syphilitic	5
Tuberculous	24
Abrasions	5
Appendicitis	1
Arthritis	2
Amenorrhœa	4
Abortion	2
Acne vulgaris	2
Anæmia	28
Arteriosclerosis	2
Ascaris lumbricoides	146
Bronchitis	16
Plepheritis	7
Blind	1
Burn	8
Bruises	8
Cataracts	14
Cardio-renal	1
Cholecys	1
Constipation	19
Cerumen	4
Conjunctivitis—	
Simple	51
Catarrhal	9
Purulent	7
Corneal opacity	1
Cystocele	1
Cystitis	1
Cervix hypertrophy	1
Caries dental	46
Cancrum oris	2
Carcinoma, stomach	1
Carcinoma, tear duct	1
Common cold	36
Coryza	2
Corneal ulcer	2
Cervix, laceration of	1
Cuts	10
Caruncle urethral	1
Diphtheria	2
Diphtheria, paralysis	1
Dermatitis	11
Dermatitis, sicca	1
Diarrhœa	36
Deafness	6
Diagnosis reserved	35
Dislocation hip, old	1
Dentition	2
Erythyma	2

Digitized by Google

Eczema	30
Enteritis	41
Erysipelas	26
Epistaxis	1
Endometritis	1
Endocarditis	3
Enuresis	3
Epithelioma	2
Emphysema	1
Furunculosis	36
Fractures	3
Fibroid uterus	2
Fibroma	1
Gonorrhœa	2
Gastroenteritis	5
Gastritis	46
Gingivitis	14
Goitre	2
Gun-shot wounds	3
Hernia	9
Hæmorrhoids	13
Headache	9
Hydrocele	2
Hordeolum	2
Infections	48
Intertrigo	2
Impetigo	110
Indigestion—stomach	4
Indigestion—intestinal	2
Incontinence	1
Influenza	5
Intestinal toxemia	59
Infected wounds	33
Keratitis	9
Kyphosis—old	2
Lupus	2
Lues	9
Lacerated wounds	2
Lumbago	4
Leucorrhœa	1
Lipoma	1
Mumps	8
Malnutrition	7
Myalgia	1
Malaria	399
Malaria—chronic	2
Menopause	2
Menorrhagia	4
Melancholia—acute	1
Mastoiditis	1
Myocarditis	5
Neuralgia—intercostal	1
Neuritis	4
Nephritis	12
Neuhasthenia	1
Onychia	2
Otitis media chronicpur	93
Otitis, media	21
Ostitis	8
Oxaluria	1
Ovaritis	1
Pleurisy	2
Perineal laceration	1
Phimosis	1
Pregnancy	6
Pneumonia	2
Presbyopia	1
Pterygium	1
Pharyngitis	1
Pyorrhœa	11
Pertussis	1
Puritis	1
Prosidentis	2
Pellagra	1
Polyp, nasal	1
Quinzy	2
Rheumatism, articular	29
Regulation of habits	1
Rhinitis, purulent	6
Rhinitis, sicca	1
Retention of urine	1
Seborrhœa	4
Sterility	5
Synovitis, traumatic	4
Spleenitis	16
Senility	3
Scar tissue of cornea	1
Scar tissue of mouth	2
Stomatitis	29
Scabies	30
Scorbutus	2
Salpingitis, chronic	3
Strained back	1
Sciatica	8
Sand fly fever	3
Spleen—hypertrophy of	1
Tænia, versicolor	1
Trachoma	1
Trauma	2
Tumor of brain	1
Tænia, circinata	3
Talipes equinus varus	1
Tonsilitis	38
Tænia, saginata	1
Tonsilar, hypertrophy	5
Tuberculous type—	
Synovitis	3
Adenitis	5
Pulmonia	12
Spinalis	7
Bone	5
Toxemia from teeth	1
Torticollis	1
Tendon contracture	1
Tetanus	1
Ulcer, stomach	1
Ulcer, varicose	4
Ulcer, rodent	2
Varicose veins	2
Wounds	4

JUVENILE COURTS IN THE UNITED STATES.

It is estimated, on the basis of a questionnaire study made by the Children's Bureau of the U. S. Department of Labor, that 175,000 children were brought before courts in the United States in a year. Of these, 50,000 came before courts not adapted to handling children's cases.

Although every State except one had laws providing for juvenile probation, according to the investigations of the Bureau, less than half the courts hearing children's cases actually had probation service. The majority of the courts failed to make adequate investigation of the child's home and family circumstances, his physical and mental condition, and his personal tendencies.

Digitized by Google

Sixth Annual Meeting of Women Physicians of Southern Medical Association[+]

THE sixth annual meeting of the Women Physicians of Southern Medical Asso. was held in Louisville, Nov. 16, 1920. Dr. Elizabeth Bass, of New Orleans, President of the Association, presided. Interesting reports were given of the New Orleans meeting of the National Association, and a letter from Dr. Lovejoy, acting president of the Medical Women's National Association, was read. This expressed appreciation of herself and the organization for the entertainment and especially the luncheon tendered them at the New Orleans meeting.

The president reported the luncheon tendered the Medical Women's National Association, also the moving picture feature and talk by Dr. Yarros with the films of the Social Hygiene Association.

An interesting letter from Dr. Mary Elliott now in Serbia was read.

Dr. Martha Tracy, Dean of Woman's Medical College, President of Medical Women's National Association, being present as a guest, was given the privilege of the floor. Dr. Tracy spoke of opportunities of medical women and asked that the Southern Medical Women give their support to the National, as it is important to have a large body in order to influence legislation and to co-operate in securing proper college and hospital staff positions.

Dr. Bass reported the peculiar instance of Tulane University having a woman on the faculty before women students were admitted, also of the Orleans Parish Society which, until a few years ago, would not admit women to membership, had recently requested a woman to be its president. (Dr. Bass was too modest to state that she was the woman on the staff of Tulane, where her fine work has been for years admired and appreciated.)

The treasurer's report was read and accepted. Report of committees; letter from Dr. S. E. Van Duyne, chairman of committee to interest young college women in the study of medicine; nothing done as committee work, but individual effort made; asked to be relieved of this work, as expected to resign. On motion of Dr. Kane it was carried that Dr. Van Duyne be requested not to resign and that she continue as chairman of this committee.

Report of committee to secure loan fund or scholarship. Dr. Hunt, chairman, reported that she had been under the impression that the work would be discontinued, and had not made much effort in the matter. Moved and carried that Dr. Hopkins be made chairman.

Dr. Bass reported that Dr. Strobel had resigned as president on account of serious illness and death in her family.

Resolutions on death of Dr. Robinson passed, moved and carried and that they be spread on minutes and that a copy be sent to the family of Dr. Robinson.

Whereas, it has pleased Providence to remove from our midst Dr. Annie M. Robinson, of Birmingham, Ala., a member of this Association and a beloved physician to a large circle of devoted patients, therefore be it

Resolved, That the women physicians of the Southern Medical Association here record their sorrow at her death and order that this resolution be spread upon their

[+]Dr. Kane, in accepting the office of president, spoke of the importance of the contact between medical women and how much they need to know each other, and asked for the support and hearty co-operation of the members.

Digitized by Google

minutes and that a copy be transmitted to Dr. Robinson's family.

The name of Dr. Elizabeth Cohen, of New Orleans, one hundred years old, was proposed as honorary member. Dr. Martha Tracy's name also presented. Both unanimously elected to honorary membership.

Mrs. Rockhill, Editor of "Woman's Medical Journal," was present, and asked that the members use the "Journal" more as a medium of exchange of news items about medical women.

An unusually large number of members were present, the proverbial hospitality of Louisville being well known throughout the section covered by this Association. The reception and entertainment accorded the guests exceeded even their expectations, and a royal good time was furnished the delegates.

The local entertainment committee, consisting of Dr. Florence Brandeis, Chairman; Dr. Julia Ingram, Dr. Anna Lawrence, Dr. Lillian H. South, Dr. Alice N. Pickett, Dr. Annie Veech, Dr. Della Hertzsch, Dr. Winnifred Green and Dr. Dorothy Vissman, were indefatigable in their efforts to please their guests and most felicitous in choice of entertainments. The banquet Wednesday evening at Hotel Seelbach was a charming affair, with short but brilliant after-dinner speeches, and gastronomically not to be excelled. The speech of Dr. Martha Tracy is given in part in this issue in connection with the article from which she quoted, written by Dr. Goldwater, of New York.

Dr. Eva Youmans, of Florida, and Dr. Josephine Hunt, of Lexington, offered the following resolutions:

That the women physicians of Southern Medical Association are deeply grateful to the women of Louisville for the foresight which they have shown in making provision for the comfort and pleasure of the women during this Association, and that we hereby express our hearty thanks to Dr. Brandies as chairman and to her coworkers for the excellent manner in which they have planned and executed means for our entertainment.

The following officers were elected: *President, Dr. Elizabeth Kane, Memphis, Tenn.; First Vice-President, Dr. Florence Brandies, Lexington, Ky.; Second Vice-President, Dr. Eva Youmans, Miami, Fla.; Secretary-Treasurer, Dr. Josephine Hunt, Lexington, Ky.

DR. L. ROSA H. GANTT
Recording Secretary-Treasurer Medical Women's National Association, Spartanburg, S. C.

MEDICAL WOMAN LEADER IN WAR ACTIVITIES AND RECONSTRUCTION WORK.

Dr. Gantt was pre-eminently the leader of the women of the South in war activities. She is a woman of great intellectual force, and is recognized as a leader in the South in public service work. She has held the position of acting assistant surgeon in the United States Public Health Service, and is the only woman in the country who served as examining physician for the exemption board and on a district advisory board. Few women in the country were called upon to fulfill so many positions of authority and trust.

Her first war work was to advocate organizing a Red Cross Chapter for Spartanburg County. She assisted in organizing this chapter and served as its vice-president during the period of the war, and with the other officers of the chapter went all over the county organizing auxiliaries. She also taught three classes in first aid. She served without remuneration as eye, ear, nose and throat examiner for one of the local draft boards from beginning to end, and towards the end of the war after the State was redistricted became a member of the District Advisory Board. As Spartanburg was an extra cantonment town with a United States Public Health Service unit stationed here, she served with that unit as medical inspector of schools with the rank of Acting Assistant Surgeon, U.S.P.H.S.

Digitized by Google

When war camp community service was established she became a member of its executive committee, and organized five hundred women into a Woman's Auxiliary for War Camp Community Service, and served throughout the war as chairman of this organization, which had in charge all hospitality for soldiers, the establishing of soldiers' Clubs and supervision of their activities, chaperoning all dances, parties, etc., for officers and soldiers, attention to sick soldiers at base hospital, etc. This organization handled most successfully the women's part of all the drives for Liberty Loan, Red Cross, Thrift Stamps, etc., and did the relief and motor corps work during the influenza epidemic.

She also served as a member of the executive board of the Girls' Protective Bureau, which was Government work established at Spartanburg because of the proximity of Camp Wadsworth, and also a member of the executive board of the local Travelers' Aid Society. In addition to these she was chairman for South Carolina of the American Women's Hospital Committee of the Medical Women's National Association, and raised money for their work in France and Serbia, and was a member of the Volunteer Medical Service Corp and Council of Defence. With the exception of the work done for United States Public Health Service, there was no remuneration for any of this work.

As two of our local ophthalmologists went overseas, Dr. Gantt had to take care of many of their patients.

Before the war Dr. Gantt was one of the pioneer leaders in public health work in South Carolina, and as early as 1909 organized a county anti-tuberculosis league, which later became a health league, employing a visiting nurse. She was also one of the leaders in medical inspection of school children, and through the co-operation of the County Medical Society, Spartanburg was one of the first cities in the South to have medical inspection in its schools.

For many years she actively assisted in the public health activities of the State through the State Medical Association and the South Carolina Federation of Women Clubs, of which latter organization she was for four years chairman of the department of public health, and in this capacity and as chairman of its legislative committee appeared before the State Legislature many times asking for the passage of such important bills as that for the establishing of a State reform school for girls, an institute for the feeble-minded, compulsory education, and compulsory medical inspection of school children, all of which have materialized.

Since the passage of the bill to establish the girls' reform school, Dr. Gantt has served as a member of its advisory board and as member of the advisory committee for State Board of Public Welfare. For many years she served on the committee of the American Medical Association for Public Health Among Women and Children, and for nine consecutive years was secretary of the Spartanburg County Medical Society, taking an active part in working for the $250,000 county hospital, now nearing completion.

When the United States got into the War, and so much war work was necessary in this cantonment town, Dr. Gantt felt that she must decline re-election as secretary of the County Society. For a number of years she had been actively working in the interest of social hygiene and delivered many lectures on this subject even before the war made it seem imperative that this information should be carried to the people. Since the cessation of war she has lectured for the War Work Council of the Y. W. C. A. and for the Y. M. C. A. on their social hygiene programs.

Dr. Gantt has a husband and an adopted son and a large home, and also has an extensive eye, ear, nose and throat practice in Spartanburg, where she has practiced for eighteen years. She helped to organize the Women Physicians of Southern Medical Association, and served continuously as its secretary-treasurer for seven years until election as recording secretary-treasurer of the Medical Women's National Association made it advisable for her to resign from former position.

Notwithstanding her many responsibilities and cares Dr. Gantt is a charming woman and numbers her friends by the score. She is most modest, and but for her admiring friends much of the work she does so quietly would not be known. Quiet and efficient, and always courteous and thoughtful, she is as rare a friend as she is an executive.

THE PROGRESS OF CHILD HYGIENE WORK

How far the States have officially recognized the importance of child welfare work is brought out in the annual report of the Children's Bureau of the U. S. Department of Labor. At the present time thirty-five States have created Child Hygiene or Child Welfare Divisions. Before organized effort for such divisions was carried on as a part of the Children's Year Campaign only eight States had such divisions.

The State of New Jersey has appropriated $150,000 a year for its Child Hygiene Division. This is the largest budget so far adopted by any State, but some bureaus with only meagre appropriations, through the co-operation of medical, public health and social welfare organizations, have been able to carry out far-reaching plans of health work.

The Federal Children's Bureau acts in an advisory capacity to these State organizations, and has rendered direct assistance in the development and administration of their work. Having contact with all the State divisions, it has been in a position to pass along all the new and effective methods adopted by any of the bureaus.

To assist private organizations engaged in child welfare work, the Children's Bureau has begun a series of practical bulletins on office administration, records, publicity and other problems of private organizations. A large part of the field of child hygiene is covered by these private organizations, and increased efficiency will mean greater service to the children of the country, as well as a saving of effort and money on the part of the public which supports this field of work.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by

THE MEDICAL WOMAN'S JOURNAL

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Subscriptions:

Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.— Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

The New Year is here—not quite so blithesome an infant as in 1914, when the world seemed to be at peace, but was really seething and almost ready to burst into flames—but a much happier youngster than in those sad years of fifteen, sixteen, seventeen, eighteen, and when the ghosts of his predecessors made little nineteen a shrinking, shadowy child. Nineteen twenty-one started his career with so many responsibilities and unfinished tasks that his child-like air vanished almost as soon as he saw the light. His growth into sturdy manhood has been so rapid that, with Herbert Hoover's help, he is fast feeding the starving babes of the world and bringing some degree of comfort to desperately weary thousands. With so much misery on every hand, we who are fairly comfortable and happy are or should be thankfully counting our blessings and **doing** instead of resolving to do.

The "Journal" regrets many shortcomings of last year, and we shall try to do better this year. Please help us by your encouraging words, and more than all else by your co-operation. A happy new year to all.

THE SHEPPARD-TOWNER MATERNITY BILL

A matter of the utmost concern to the women physicians of the country is presented to our readers in an article on the Sheppard-Towner ("Maternity") Bill on page — of this issue. The nation is at last giving attention to the work for maternity and infancy care which physicians —and particularly the women of the profession—have so long carried on against almost insurmountable odds.

Through its scientific studies the Children's Bureau of the Federal Government has made important contributions to our knowledge of the social and economic aspects of infant and maternal mortality. The research work on "Maternal Mortality" by Dr. Grace Meigs (Crowder), first director of its Child Hygiene Division, has been ably carried on by the staff of women physicians. Year after year the Children's Bureau has emphasized the need of public provision for maternity and infancy care, and largely through the stimulus of the Children's Bureau, Child Hygiene Divisions have been established in thirty-five of the States, all but three being departments in the State Boards of Health.

The machinery for putting into operation an effective system to conserve maternal and infant life in this country has been to a great extent prepared. We hope that Congress will be made to recognize the importance of this problem, and that the physicians of the country will receive this assistance in their effort to save the lives of mothers and infants.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 1

February, 1921

$3 per year in advance
Single Copies, 25 cents

WOMEN IN THE LEAD INDUSTRIES*

By ALICE HAMILTON, A.M., M.D.

Special Investigator, United States Bureau of Labor Statistics, and Assistant Professor of Industrial Medicine, Harvard Medical School

[Continued from last month]

The following are brief descriptions of the principal lead industries as they are carried on in the United States, together with statements as to which occupations are specially hazardous and should not be given to women, and which may be rendered safe enough to permit of women's employment. Only the danger from lead is discussed in what follows. No attempt is made to pass on the different occupations as far as muscular effort involved, or exposure to heat, or other harmful features are concerned. It may be that an occupation free from the danger of lead poisoning is too heavy for a woman to undertake, or that for some other reason it is not suitable for women. The statement that "a woman may do this work" means only that she may do it without much risk of lead poisoning, not that she is strong enough to do it.

Lead Mining.

Probably lead mining is the least important of the lead industries so far as the employment of women is concerned, and yet it is possible that women may find employment in some such work as emptying ore cars. It is enough to say, however, that there is little danger of lead poisoning here, unless the mined ore is so handled in the course of concentrating it or transporting it as to expose the workers to a very great deal of dust. The lead ore now mined is chiefly lead sulphide, the least poisonous compound of lead found in industry, and though cases of lead poisoning have been found among miners in the Missouri lead belt they are rare. Western ores still contain some oxides and sulphate and carbonate, all of them more soluble than the sulphide, and western miners are more likely to have lead poisoning.

The danger in handling lead ores can be prevented by sprinkling to keep down the dust.

*Bulletin U. S. Department of Labor.

Lead Smelting and Refining

Women have never been employed in lead smelting and refining and probably never will be employed in smelting; but it is not so certain that they may not be employed in refineries before long.

The dangers in a smelting or refining plant come from the fumes and dust, and in most plants every employe is more or less exposed to them, though in a clean, well-managed place there are parts which are almost free from danger. As a rule, a refinery is worse than a smelter. This should not be the case, for the smelting of ore requires a great deal more heat and produces far more fumes than does the refining of bullion and scrap. But a smelter is usually a large plant, and managed with a good deal of care, while a refinery is often insignificant in size, very neglected and dirty, and carelessly managed.

In handling the ores as they reach the smelter, dust is the danger, and this varies according to the dampness of the ore, and its composition, i. e., whether it is sulphide or mixed compounds. The ore is then either smelted at once on open hearths with great production of poisonous fumes, or it is first prepared by preroasting. In preroasting, in roasting, and in smelting there is danger from dust while the charges for the furnaces are being prepared, and while the furnaces are charged, and there is great danger from fumes during roasting and smelting, and of both when the furnaces are emptied of their dusty and fuming product. In the later processes of refining the danger is chiefly from fumes. An effort is made to save the lead that passes off in the fumes by means of flues and bag houses, where the fine lead powder collects and has to be cleaned out and transported back to the furnaces. This is the most dangerous kind of work in the industry.

The occupations in a smelter which could not be held by women without great risk are: the tending and discharging of the Huntington-Heberlein pots; the tending and discharging of hand-rabbled reverberatory furnaces; the tapping of blast furnaces; work on the Scotch hearths or

Digitized by Google

open hearths; and work in the flues and bag houses. Occupations which they might undertake, if conditions were made as safe as they have been in the best plants, are the following: the handling of damp ore; the feeding of blast furnaces, provided the charges are damp, the feed floor is open and clean, the charge automatically dumped, and the suction into the furnace sufficient to prevent any escape of fumes; the tending of the sinter-roasting machine (Dwight-Lloyd), provided the charge is damp, the suction exhausts strong enough to carry off the fumes, and the discharge automatic and not productive of dust. Grate cleaning for the Dwight-Lloyd machines, however, should not be given to women.

In refining there are several processes that might be undertaken by women under proper conditions, but such conditions are almost never present in American refineries. Refineries handle not only clean lead bullion, but usually great quantities of lead scrap of all kinds, dross, dirty white-lead powder, poorly roasted oxides, old storage batteries, dusty stuff of all kinds, which is bad to handle and usually fills the place with poisonous dust. This is why a refinery is often a more dangerous place to work in than a good smelter, though it need not be. If, however, great care were used to keep the place free from dust, and to carry off fumes, women might be employed in some of the processes. They should not do any of the furnace work nor handle the dross. Where the electrolytic process is used they might be employed in the battery room, though not on the dross furnaces, nor in handling the "anode mud," the product of electrolysis. Desilverizing may be so carried on as practically to be free from dust or fumes; in fact, it is probably the safest work in the whole industry, and women might be employed here. By-product and residue furnaces are not safe for women to work at, and it would be even less advisable to employ women on copper converters. On the other hand, retorting and cupeling has, in one American plant at least, been rendered free from dust and fumes. As a general thing, however, the dangers in this part of refining are fairly great, and with the exception of the plant mentioned none have been observed in which women could be properly employed. They should never be put to breaking up the cakes of litharge from the cupels.

In considering the employment of women in smelting and refining lead it must be remembered that even in the best plants accidents may occur which suddenly change a safe place into a very dangerous one. Flues fail to work and gases are driven back into the plant, the furnace gets out of order, and not only do fumes escape, but it is necessary to shut down and clean out the furnace, causing a great deal of dangerous dust. Even under the best management this industry can not be regarded as one in which women can be employed without risk.

Trades in Which Metallic Lead is Used

Lead in its metallic form is not absorbed by the human body, but after only a short exposure to the air it becomes covered with a coating of gray oxide, which is soluble in the human body. Heat greatly quickens this oxidizing process, and molten lead always has a more or less thick covering of what is called dross, which gives off, when it is stirred, those delicate bluish-gray clouds that are quite visible if one watches the stirring or ladling or skimming of a lead pot. The lead poisoning that takes place in those occupations that require the handling of lead in solid or in molten form is usually slow and chronic, and often the symptoms are not very marked or typical. Very rarely, in an oversusceptible person, typical acute lead poisoning may occur.

The dangers in connection with the metallic-lead trades come from the presence of fine lead oxide in the air near the melting pots and of dust containing lead, which arises from the floor and work benches and contaminates the air, and also from the grayish oxide which rubs off from the lead onto the hand and may reach the worker's mouth if he handles his food or chewing tobacco without washing his hands. It is almost universally believed by men in the lead industries that molten lead does not contaminate the air unless it is heated to the fuming point, and that therefore there is no need of having hoods over melting pots unless the heat in the pot is at least 800° F. To substantiate this theory a number of foreign reports could be quoted, for several lead experts in Germany and Austria have collected the air over melting pots and have failed to show the presence of lead even at a temperature of 1,000° F. This is true, however, only when the molten lead is left quite undisturbed. If it is skimmed or stirred or ladled out and poured into molds, the fine coating of oxide is detached and floats up into the air on the currents of

Digitized by Google

heat, and its presence can be shown by chemical tests. Experiments proving this were carried on by Dr. Earle D. Phelps, of the Laboratory of the United States Public Health Service, and he was able to prove that if lead is heated to 590° F. lead fumes are given off when the melting pot is agitated in any way. These experiments justify the ruling made by the British factory inspection service and by some State labor departments, which require that all receptacles of molten lead be covered with a hood having a suction pipe to carry off the lead in the fumes.

Dross from the lead pot is skimmed off and thrown usually on the floor, though sometimes into a receptacle, but even in the latter case a good deal of it often splashes on the floor. Here it is ground up by the feet of the workmen passing to and fro, and every draft of air lifts a little of it and blows it about, so that if dust is gathered from surfaces where no lead has been handled this dust may be found to contain an appreciable quantity of lead. For instance, lead can be found in the dust from the tops of cabinets in printing shops, or from the surface of the magazine of a linotype machine, or from the tops of the flue pipes in type foundries. Another source of lead dust is lead scrap and trimmings, which are allowed to fall on the floor, and which the workmen tread on and grind into dust. While there is probably never a large quantity of lead in the air of such workshops, it must be remembered that lead is a cumulative poison and that very minute doses repeated day after day may result in a quantity sufficient to cause quite as serious symptoms as would larger doses given at intervals.

There are so many industries in which metallic lead is used that it is impossible to give a list even approximately complete. The following are occupations in which industrial lead poisoning has been known to occur in the United States, sometimes in quite serious form:

Lead burning; the making of solder and babbitt; soldering; the making of lead pipe, sheet, wire, machine parts, plumbers' goods; lead tempering of machine parts; the making and laying of electric cables; the making of leaden trimmings for coffins; the making of leaden picture frames; the polishing of diamonds embedded in a lump of lead; the making of tin foil, which is really extremely thin sheet lead; the using of tin foil as wrapping; the making of car seals and can seals; brass founding; brass and nickel buffing; tinsmithing; plumbers' trade. (This is increasingly a brass industry, but lead is still used and lead poisoning still occurs among plumbers. Nineteen out of 560 cases of lead poisoning in Illinois were in plumbers.)

The use of solder and babbitt is productive of much more lead poisoning than would be expected from the nature of the work. The Illinois factory inspectors' report for the year 1913-14 gives the record of 184 cases of lead poisoning from four establishments in which tin cans were soldered. In one crowded workroom, with twelve soldering machines, 100 persons were employed, and here eighteen cases of lead poisoning developed during one winter month, when the windows were closed. Another industry in Illinois —the making of car seals and bearings— has a disproportionate amount of lead poisoning. There were twenty-eight cases of lead poisoning in one year among an average force of 188 employes. Both these industries employ women chiefly, and many of these women are under twenty-one years of age. The percentage of cases is far beyond that reported by the notoriously dangerous lead trades in Illinois.

A few instances may be given of serious lead poisoning in occupations that are not usually considered by employers as involving any particular danger, but in which metallic lead is used. For instance, a man was treated in a Chicago hospital for lead poisoning who had for two months been employed in sweeping up the shavings from casting and finishing machines in a factory making lead fixtures. Another man sickened after four weeks' work. He had been gathering up and wheeling away dross from melting pots. In a Philadelphia hospital a man was treated for acute lead poisoning who had worked for only three weeks, making lead stoppers and perforated filters for wash basins. Again, in the same Chicago hospital, there were treated for lead poisoning a man who had handled lead, copper and brass junk in a refinery; another who had lifted pig lead in a shipping room; a lead filer; a brass filer; and a lather and shingler who had the habit of holding lead-covered nails in his mouth.

Lead burning is a notoriously dangerous trade. Skilled lead burners almost never escape the effect of the lead fumes given off when they apply a hot flame to melt together the seams of the lead lining in tanks or other receptacles. The lead

Digitized by Google

burner is obliged to hold his head close to his work and to climb into the tank he is lining, or to put his head into the receptacle if it is too small for him to enter. This is the work generally understood when the term lead burning is used, namely, making lead linings for receptacles which are to contain corrosive substances. But there are other forms of lead burning that do not require so much skill and are not nearly so dangerous. The burning of lead connectors in storage-battery manufacture is a typical example. Here the worker uses a tiny flame and lets it play over the pure lead that is used to connect the battery plates. A certain amount of lead fume is given off in the course of this work, but the amount is not large, and, with abundant ventilation, it can be diluted to a point of safety for all by those very susceptible to lead.

The Printing Trades

Probably the most important of the industries using metallic lead is the printing industry, including the allied branches of linotype casting, monotype casting, stereotype, electrotyping and ordinary type founding. In all countries the printers' trade has long been considered as productive of more illness than would be expected in an industry in which wages are high, hours usually not long, and in which there is no great contamination of the air, nor exposure to excessive heat or cold, nor excessive muscular effort.

The unhealthful features of the industry are the following: It is an indoor occupation, often carried on in vitiated air; it does not require much physical exertion, and in consequence the printer's circulation is likely to be sluggish, and he is oversensitive to cold; the nervous strain is great; the printer exposed to the effects of various poisonous substances, the most important of which is lead. How important lead is as a factor in the ill health of printers can not be stated with any positiveness. Yet the evidence gathered from all civilized countries and extending over a number of years tends to show that it is important as a cause of sickness. An examination of 200 working printers in Boston and Chicago showed that 18, or 9 percent, were suffering from chronic lead poisoning; 107 of the 200 had symptoms of ill health.

Lead poisoning may be acquired by printers if they handle food or tobacco with hands which have become smeared with lead, or if they breathe lead dust and fumes. The sources of lead dust are: In the composing room, the dust from type cases; in the linotype room, the scraps of lead from the machine which fall on the floor and are ground up by the feet of passers-by, and the dust from cleaning the linotype machines and plungers; in stereotyping and electrotyping, the scraps from trimmers, routers and saws, and the dross from the kettles. In addition, most shops melt and recast their old type and scrap, and this is another source of lead dust.

The sources of lead fumes are: All pots of molten metail, if the metal is agitated by stirring or by skimming off dross, or by ladling and pouring. In stereotyping, electrotyping and remelting and casting type there is enough agitation of the molten lead to cause lead contamination of the surrounding air, but in linotype and monotype work the metal in the pot is hardly disturbed at all, and repeated tests made of the air over these machines show that lead fumes are not given off. This does not mean that linotypists may not suffer from a slowly developing chronic lead poisoning. But this is a result of lead dust, or of fumes coming from pots in the linotype room where scrap is melted. If the linotype composing room were kept clean and no work carried on there except hand composition and machine composition, there would be no risk of lead poisoning except from the cleaning of machines and plungers.

Linotype Casting. — Linotypists insist that, unless the fumes from the pots are carried off, they suffer from symptoms of ill health, and that in shops where exhausts have been installed the failure of the air current to work for a single day will be enough to bring on headache, lassitude, dullness and inability to work at the usual speed; but the fumes of lead in as small quantities as those given off from molten lead never produce symptoms quickly, their effect being very slow and subtle. What the linotypist complains of is really the contamination of the air by carbon monoxide from the naked gas burners under the melting pots, and there should always be a fume pipe with an exhaust over such a burner. It is probably unnecessary to install exhausts over type-metal pots in which the melting is done by electric current.

Digitized by Google

Hand composition.—In the composing room there should be very little risk of lead poisoning. The danger in the work of the typesetter should be limited to the handling of lead type. That risk is inherent in the trade, and can not be done away with. If it were the only risk, it would be possible to protect the compositor fully from all danger of slow chronic lead absorption simply by providing him with ample washing facilities. Then, if he did get lead poisoning, it could be assumed that he was eating his lunch or handling his chewing tobacco without washing his hands. But the case is in actual practice not nearly so simply as that. A typesetter may be a man of scrupulously cleanly habits, and yet he may get lead poisoning because there is lead dust in the room where he works, or because he has to blow the dust out of old type cases, or work near a melting pot or near a pile of lead skimmings blown about by drafts of air.

Monotype casting.—Like linotype casting, monotype casting does not result in lead fumes except when the dross is skimmed off, but gas is almost always used for heating, and all that has just been said in the section on linotype work about the evils of gas fumes and the need of carrying them away applies to monotype casting machines. Monotype machines drop lead scrap continually on the floor, but as a usual thing casting is carried on in a separte room, and the lead scrap is not scattered beyond this room. As a rule, also, the monotype casting room is well placed and well ventilated. Indeed, this department seems to be planned and managed better than any other in job printing and newspaper work.

Stereotyping.—The reverse is the rule in stereotyping, for this department is likely to be the worst housed and the worst tended of any in the printing shop. The evils of stereotyping are the very disagreeable and indeed harmful fumes given off when old plates are being melted down or "burned off"—fumes which come from the ink and contain acrolein, an irritating poison; the lead oxide which experiments have shown to be given off at the temperatures often used in stereotyping; the dust caused by trimming and routing the plates, and the heat from the kettles. All these evils are avoidable, and all have been avoided to a large extent in a few model plants. This has been done by placing hoods with strong exhausts so that they will carry off not only the disagreeable fumes at the beginning of the process, but the more dangerous though less noticeable lead fumes that come off later on, or by placing a powerful fan in an outer wall of the room. Dust is prevented by careful gathering up of the scrap and trimmings, and by throwing dross into a receptacle instead of on the floor.

Electrotyping.—The important features in this work are the pot in which the lead is heated for the backing of plates, the hot pans on which the molten lead is poured, the trimming and routing of the plates, and the sawing and beveling. As in other departments in a printing shop, old plates have to be remelted and the metal used again. When these ink-covered plates are melted down, the same sort of gases are given off as in melting stereotype plates. The lead in the melting pots in an electrotype foundry is often allowed to run up to a higher temperature than is necessary, because it is easy to cool it down to just the right temperature in the backing pans. Experiments show that lead fumes are given off at these higher temperatures when the lead is agitated, and therefore, to make electrotyping safe, some method for carrying off these fumes is necessary. An electrotype foundry can be made free from lead fumes, and the lead scrap can be so carefully handled that lead dust will be but a slight danger. In the majority of electrotype foundries little or no attention is given to carrying off the poisonous fumes. A disagreeable feature of the work is the use of black lead, which is very light and flies about, darkening walls and ceilings and settling on the windows. Other disagreeable features are the heat and the blast of steam that in some places is used to clean plates.

There is an increasing tendency, now that the price of lead has risen so high, for newspaper plants and large job houses to refine the dross skimmed off the melting pots instead of selling it to junk dealers. Sometimes they simply remelt it, recover a small part of the lead and sell the rest, but in some plants a cupeling furnace is installed and the dross is actually smelted. This is work attended with all the dangers described under lead smelting, and it should be safeguarded by the methods described there. It should

Digitized by Google

always be done quite apart from any other work.

Women in the Printing Trades

Women found their way long ago into the printing trades, though not into monotype casting, stereotyping or electrotyping, nor are they as yet employed in large numbers in any branch of actual printing. They are accepted as members of the Typographical Union on exactly the same terms as men, and must go through the same apprenticeship, and, after becoming journeymen, they have the same hours and receive the same pay as men. They are found in large numbers as proof-readers and are usually the operators on the monotype keyboards, but do not work in the monotype casting room. In nonunion shops they are press feeders, sometimes doing all of that work. As compositors and linotypists they are not numerous. In the course of an investigation made in 1916 of the printing industry in seven American cities, only 14 women linotypists were found out of a total of about 1,532 operators, and only 103 hand compositors out of a total of about 3,800.

As is true of so many of the skilled trades, a wide difference of opinion exists concerning the entrance of women into the printing trades. This difference was brought out clearly at the meeting of the International Association for Labor Legislation in Lugano, in 1910, and at the following meeting in Zurich, in 1912. The Italian delegates took the stand that, for the good of the race, women must not be allowed to work in this industry, since the danger of lead poisoning is too great; they admitted, however, that they had no evidence of an undue amount of lead poisoning among the few women employed in Italy. The Austrians were also in favor of forbidding women to work at any occupation in printing in which contact with lead is involved, and the regulations now in force in Austria contain this provision. The British delegates, on the other hand, maintained that it was entirely possible to do away with the danger of lead poisoning in the printing trade, and that efforts should be directed toward making the industry healthful for both men and women, rather than toward shutting women out from occupations in which they had long been employed, and which were in many ways suited to their powers. The French and American delegates stood with the British.

The typographical industry is not the only one in which efforts have been made to prohibit the entrance of women on very insufficient grounds. The danger to health in this industry is avoidable, and the logical thing to do is to institute such sanitary measures in printing shops as will make them safe for both sexes. The Austrian statistics of lead poisoning in woman printers, on which so much stress has been laid, depend on the fact that Austrian women used to be employed in the type foundries, finishing type by hand, and this work is dangerous for men as well as women, and should be replaced by machinery. Machine composition, hand composition, monotype casting and electrotyping can be carried on, and in the best shops are carried on, in such a way as to reduce the danger of lead poisoning to a minimum. In stereotyping this would be more difficult, but the greater physical strength needed by the stereotyper makes it highly improbable that this occupation will ever be given to women.

Type Founding

Type founding is closely connected with the printing trade, and indeed a few newspaper offices have their own type-founding machines in addition to the monotype and linotype mechines. As a usual thing, however, type founding is a separate business in the United States, though in Europe it is often carried on in connection with printing.

Statistics of lead poisoning in the printing trades in Europe always show a high percentage among the women employed in type founding. In Austria the women foundry helpers have much the highest rate of lead poisoning in the whole industry—one case out of nine women employed—while the compositors have only 1 out of 35 employed. In Germany five times as many founders as compositors have lead poisoning. In this country the only cases reported of lead poisoning among women engaged in the printing and allied trades have been among type foundry employes. The danger of work in a type foundry is very much like that in stereotyping, except that there is far more fine lead dust. The heat in the casters often runs up to the point at which lead oxide is given off, and it is not customary to place hoods over the molten lead. The evil of gas fumes is the same as that described under linotype work. But the worst feature in the type foundry

Digitized by Google

is the lead dust from the hand finishing of type. The type cast by the older kind of machine—the Bruce machine—has to go through various processes of filing, "dressing," or grooving, and "kerning," or smoothing, and inspecting, assorting and packing. This is fine work, and all of it is productive of dust. The woman finishers sit bent over their benches, with their heads close to their machines or tools. They use pads of plush to hold the type, and these get full of lead dust and are shaken and beaten clean from time to time, and the fine gray powder that collects on the benches is brushed off. This finishing work is often carried on in the same room with the casting machines, with their gas fumes and possibly lead fumes.

So long as casting machines of the old pattern are used and hand finishing has to be done, type founding will be the worst branch of the printing trade. The newer make of caster, known as the Barth machine, casts type which is already finished and needs no further handling.

Summary of the Metallic Lead Industries

To sum up the features which are common to all the trades in which lead in metallic form is used: The form of poisoning found in these occupations is slow and insidious and sometimes shows itself only in an increased tuberculosis rate, because the resistance of the body to infection has been lowered by mild chronic lead poisoning. The dangerous feature is lead oxide in the form of fine dust, which rises from the surface of molten lead and is rubbed off from the surface of solid lead. It is perfectly possible to prevent all, or almost all, air contamination by this oxide dust. When it can not be entirely prevented, the proportion in the air can be reduced to the margin of safety for all but the oversusceptible by ample ventilation. The employment of women in these industries can be permitted because there is no reason why the risk of lead poisoning in working with lead metal should not be reduced to a minimum.

Grinding of Paint

The only risk in this work is in handling the lead compounds—white lead, lead chromate, or chrome yellow, and red lead —or in breathing air contaminated with these compounds. In a well-managed paint factory weighing of lead colors is done in such a way as to make the escape of dust impossible, and grinding in oil takes place in covered chasers. These processes are carried on in rooms separate from that in which the keg filling is done. Under such circumstances there is no reason why women should not work at keg filling. It is very important to separate the dusty work from the safe work. In a Chicago paint house a girl engaged in pasting labels on the paint cans contracted lead poisoning because they had put her to work so near the open scales where the white lead was weighed as to expose her to the dust from the dry white lead.

Manufacture of White Lead

This is probably the most notoriously dangerous of the lead industries, the one that has attracted more attention than any other in European countries, and that has led to special legislation for the protection of the men and women engaged in it. It can not be assumed that the description of the white lead industry in Great Britain or France or Germany applies to conditions in America, because our methods of manufacture differ in several important respects from theirs. On the one hand, we use a dry method where they use water, and this means more danger from dust in our plants; but on the other hand, we have developed machinery to a far higher point than they have, thus doing away with hand work and reducing the number of employes required.

Old Dutch process.—The Old Dutch process is till the one most commonly used in the United States. The lead is cast in thin disks or "buckles." Women may properly work at casting provided only clean lead is used, not scrap with white lead dust clinging to it, and provided the precautions described in the last section are observed. These buckles are packed in pots with acetic acid and stacked in layers in old tan bark, where they are left for about 100 days to "corrode," or change from the metallic form into the basic carbonate, white lead. This work is known as "stack setting," or "setting the blue beds," and the English law allows women to do it. So long as only clean blue buckles are used for the blue beds, there seems no reason why women should not do the work. Unfortunately in some of our plants it is the custom to mix with this blue lead parts of buckles which have been imperfectly corroded and which are more or less covered with white lead. When this is done, the character of the work is quite different, for the stack set-

Digitized by Google

ters then are handling not only clean metallic lead, but white lead, which is often dusty. Women should not be allowed to work in the blue beds when old buckles are used.

When corrosion is complete the tan bark has to be taken off and the pots lifted and emptied. In England and Germany the white lead must be sprinkled with water before emptying to keep down the dust, yet even so the English law forbids the employment of women in "stack stripping," or "stripping the white beds," as this work is called. In our factories we can not sprinkle the white lead, because the corroded buckles must go through a series of grinders and screens to separate the white lead from the unchanged metal in the center of the buckle, and dampness would result in clogging the screens. Great improvements have been made of late years to do away with the dust in American stack sripping, but in spite of that the work is dangeroust and does not admit of the employment of women.

Dry-pan room.—The second danger point in white lead manufacture is the dry-pan room, where the white lead, after repeated washings, is pumped into great, hot pans and left to dry for many hours, then conveyed by various methods to the barrel packing machines, or to the place where it is to be ground in oil. In some factories the white lead, still suspended in water, is ground as "pulp lead," the oil displacing the water gradually and no drying process being needed. Work in the dry-pan rooms has been very much improved of late years in the best factories. Where formerly the dry white lead was shoveled out and dropped into trucks, it is now drawn to the edge of the pan by a long-handled hoe, and falls into a conveyer, which carries it to the barrel packer or to the place where it is to be mixed with oil. Both pans and conveyers are covered except for a small opening during the time that emptying takes place, and under this cover is an exhaust which prevents the dust from escaping.

In spite of these improvements, however, nobody would advise the employment of women in the dry-pan room of a white lead factory, nor in the two following processes: Packing the dry white lead, which, no matter how carefully done, is inevitably dusty work, and grinding white lead in oil. The department in which they may be employed, provided conditions are as they should be, is the final filling of small kegs or pails with lead and oil. If women are to be allowed to do this, however, the work must not be carried on in the same room with the grinding of dry lead, nor with barrel packing, nor must any other source of white lead dust be permitted there. The record was obtained of a young girl who contracted lead poisoning doing this very work, and it was assumed that she had absorbed the lead paint through her hands. But when closer inquiry was made, it was discovered that she was working near the door of the grinding room, and she said that very often clouds of white dust would come blowing in through that door. Her poisoning is attributed to the inhaling of dust, not to absorption through the skin.

Carter process.—Another process for corroding lead is gaining ground in the United States. This is the so-called Carter process, based on the same principle as the Old Dutch process, but bringing about corrosion in two weeks' time, while the Old Dutch process takes about 100 days. This rapid corrosion is effected by atomizing melted lead in a blast of superheated steam, and subjecting this fine lead powder to the action of acetic acid in large revolving cylinders. Streams of carbon dioxide are driven into the cylinder, and a spray of acetic acid is introduced from time to time. The first corroding period lasts five or six days, and the lead is then in little balls of carbonate with uncorroded particles in the center. This must now be ground and corroded again. The final corrosion over, the white lead is ground in water.

The advantage of the Carter process is that, being largely mechanical, it reduces the number of employes who must be exposed to poisoning during the process; and from year to year mechanical improvements make actual contact with the lead less and less necessary. The disadvantages are that the lead is in the form of powder from the very beginning, and that there are certain points in the process where it is hard to avoid dust, even when everything goes well, and where it is impossible to do so if anything goes wrong with the machinery. It would not be advisable to employ women in connection with the atomized blue lead, nor in the cylinder-room, nor on the thrashers. In fact, the only place in which they should be employed is in packing lead in oil, provided the precautions given above are observed.

(Concluded in next number.)

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M. D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

POST-OPERATIVE TREATMENT OF SURGICAL CASES

THE successful result of a surgical operation is usually determined in the operating room, and lies in the hands of the surgeon. The comfort and speedy recovery depend on the post-operative treatment, and is, in many cases, best achieved by the patient's family physician. Every surgeon whose work is satisfactorily completed in the operating room knows that by the transfer from the operating table to the bed the patient has, camelion-like, been transformed into a medical case. It is for this reason that the relation between the surgeon and the general practitioner or the internist should be that of frequent consultation or, better, of co-operation.

The most necessary requisite in post-operative care is to secure rest for the patient, and next in importance is to promote an early return of all the organs to their normal function. It is, therefore, of the utmost importance to prevent or relieve shock, pain of all kinds, thirst and vomiting. One of the difficulties confronting us is that what we may do in one direction may frustrate our efforts in another. Hence simplicity in our therapy with careful attention to synergism and antagonism must be always uppermost in the mind.

Post-operative treatment may be divided into preventive and corrective. Under preventive post-operative treatment is the avoidance of catharsis previous to operation. Roentgenologists have demonstrated that in 6 to 9 hours after a meal the stomach and small intestine are empty. We have then only the colon and rectum to care for, and a soap suds enema repeated until it returns clear or free from fecal matter secures a clean lower bowel. This flushing of the lower bowel should be finished at least 6, and, better, 12 or 18 hours previous to the operation. The objection to the cathartic given previous to operation is that the physical discomfort and the dehydration following catharsis render the patient more susceptible to shock and to intestinal irritation leading to thirst and gas pains.

Another help in preventing post-operative symptoms is to give the patient previous to operation two doses of scopolamin-morphin at intervals of an hour, so that she may go to sleep in her bed and awaken in her own room some hours after the operation. The first dose of scopolamin and morphin may be given two and one-half hours before the time set for the operation, and the second dose one and one-half hours before the operation. If a third dose is given, it may be given in the operating room, but the two doses of scopolamin prevent psychic trauma previous to operation and shock during operation. Scopolamin and morphin, properly administered, is without doubt the most perfect nerve block that we possess, blocking not only the field of operation, but the entire body from the brain. In addition, the scopolamin and morphin are so antagonistic in every respect except in relieving pain and producing sleep where they are synergistic that the headache and disagreeable symptoms following a dose of morphin are avoided, and the hallucinations which would be produced by the scopolamin are not experienced.

The action of the scopolamin-morphin given before operation continues long after the operation, the average time being four hours after the last dose. This secures several hours of quiet and restful sleep immediately after the operation with immunity from vomiting for the first twelve hours after the operation.

Another advantage of the scopolamin-morphin is the lessened amount of chloroform, ether or gas that will be found necessary for producing relaxation or quieting reflex action during the operation. The cutting down in the amount of chloroform or ether helps to avoid the disadvantages

Digitized by Google

of these anesthetics—namely, vomiting and respiratory disturbances during and after the operation. This sleep or semi-conscious condition that is noted for a few hours after the operation when the patient has had scopolamin-morphin may be continued for almost any length of time by repeating every four hours a small dose consisting of scopolamin 1/200 or 1/400 with morphin 1/32 or 1/64. After abdominal operations these small doses should be administered at the four-hour intervals for 36 or 48 hours to avoid post-operative pain, while after hemorrhoidectomy or herniotomy a period of 24 hours is sufficient.

The preventive and corrective treatment merge in this way so that they become dependent the one upon the other, for not only does the large dose of scopolamin and morphin previous to operation make it possible for small doses to become effective after operation, but the large dose of scopolamin and morphin makes it possible to administer a sufficient amount of water by the bowel to enable the patient to pass through the first two days after operation without suffering thirst and gas pains.

The need of large quantities of water after operative procedure does not seem to have been sufficiently appreciated. Three-fourths of the body consists of water, while the skin, kidneys, lungs and bowels are always open for its constant loss. The emptying of the alimentary canal preparatory for operation; the preparation of the skin previous to and the application of warmth during and after operation; the drying of the mucous membranes of the air passages resulting from anesthetic, the loss of secretions, together with the withholding of drink during the sleeping hours at night, during the operation and for some time after the operation—all of these factors make for an extreme degree of dehydration.

This dehydration produces thirst, predisposes to shock and infection, diminishes the amount of urinary secretion, indirectly interferes with healing and lessens excretion by the skin and lungs. To prevent and correct this dehydration, five quarts of tap water may be given to every surgical patient by enema within one-half hour after the operation is completed, with the exception of rectal operations or operations where the integrity of the colon or sigmoid is involved. This tap water is given by low enema, the tube or point not being inserted farther than three inches into the rectum. Two and one-half quarts or five pints are given, while the patient is still on the operating table during the closure of the abdominal incision or before the patient leaves the operating room, and another two and one-half quarts or five pints are given after the patient has been made comfortable in her bed, which will be about twenty or thirty minutes after the patient has left the operating room. The patients, almost without exception, retain this large amount of water. It gives them freedom from thirst, increases the amount of urine excreted, gives fulness to the pulse and prevents gas pains.

If the water is introduced into the rectum before the abdominal cavity is closed, and an examination of the abdominal cavity is made to ascertain the distribution of the water in the lower bowel, it will be found that the rectum and descending colon is overdistended, the sigmoid empty, the transverse colon partly distended, and some, though little, water in the ascending colon. No complaint of abdominal discomfort is ever made by the patient, and the lower bowel could, no doubt, hold more than the five quarts. One of the nurses has reported that through a misunderstanding a patient was given eight quarts, and retained the entire amount without discomfort or unsatisfactory result. When patients are given this amount of water immediately after the operation, they will, of their own volition, drink very little during the first two days post-operative, and this in itself will have a tendency to lessen post-operative vomiting, making an additional advantage in giving a maximum amount of water by the colon at a time when it can be retained without producing uncontrollable peristalsis.

The scopolamin-morphin anesthesia during the operation and continued in a light form for one or two days following the operation, and the employment of the five-quart enema immediately after the operation give us the means by which we may best secure rest, that important factor in convalescence.

The next thing to do is to bring back all the organs most quickly to their normal function, and restore the intricate metabolism interrupted by the surgical trauma and anesthesia. This brings up the question of diet, posture, catharsis, length of time for confinement to bed and in the hospital.

Posture for the post-operative patient will do much to relieve pain, control vomiting, aid healing, and restrain infection. Abdominal operations require relaxation

Digitized by Google

of the abdominal muscles; pressure on the thoracic viscera by distended intestine must be prevented. Those peritoneal surfaces which best withstand infection must be made most dependent, and those surfaces which absorb most readily must be at the highest level compatible with comfort. The stomach will drain more easily if not in the horizontal position, and the head of the patient if elevated is not so subject to congestion and its resulting discomforts. For these reasons the Fowler position is ideal for a very large percent of all surgical patients.

Surely no advantage can be gained by depriving a patient of pillows, a custom which has gained such universal popularity in our hospital training. Many patients are impressed with the importance of lying on the back and suffer great discomfort in trying to maintain the dorsal position, while the facts are that hypostatic pneumonia, backache, bed sores and congestion of the kidneys are much more to be feared than anything that could happen to the site of operation as a result of change of position even if the patient should get out of bed.

In ordering diet for the surgical patient it must be remembered that a patient confined to bed with no elevation of temperature requires but few calories to maintain health, and that an increase in food intake must be accompanied by an increase in waste elimination. Digestion and elimination puts a burden upon the circulation which is already taken up with the repair processes incident to trauma. Nothing more than hot water or weak tea is needed or cared for during the first twenty-four hours after operation. On the second day cool water and tart fruit juices are agreeable and more than sufficient. On the third day any liquids may be given except milk, which unless in the form of buttermilk is often slightly disturbing. On the fourth, fifth and sixth days all liquids with toast and crackers will give variety and be easily taken care of. On the seventh, eighth and ninth days add eggs, chops, steak, chicken, lettuce and simple desserts. After the ninth day general diet may be allowed with indigestible articles eliminated. Food should not be brought by friends to surgical patients, and overeating should be discouraged in every way.

During convalescence from a surgical operation, if at no other time, food should be given that will be suitable for the digestive organs and to meet the special needs of the patient rather than to cater to the palate.

During the first week catharsis should be prescribed very exceptionally, but if the patient is uncomfortable an enema with or without an accompanying dose of pituitrin will give relief. In a large proportion of cases the bowels will move spontaneously during the latter half of the first week after operation. If a cathartic seems necessary on account of some post-operative complication, two grains of calomel in a single dose or a dose of cascara in some form is a very good choice for a surgical patient; and unless it is desirable that the catharsis be followed by constipation, as in perineorrhaphy, hemorrhoidectomy or rectal operations, castor oil has no advantage as a cathartic.

If the patient has been in the Fowler position, sitting up in bed may not be considered a privilege, but to patients who have been in the dorsal position, sitting up in bed may be allowed at an early day and will do much to promote comfort. Getting out of bed is more or less of a strain on the abdominal muscles, and if the incision is long the patient should not be allowed to get on her feet for at least two days after the sutures have been removed, and then the binder should be tightly applied before making the effort. From the seventh to the twelfth day the catgut sutures begin to disintegrate and disappear, leaving only recently cut surfaces cemented together with the delicate materials by which healing is effected. When the sutures are removed, the incision is in its most fragile state and should be treated accordingly. At the end of the third week, if the healing has been by first intention, no further thought may be given to it.

Leaving the hospital before wounds are closed, or before the patient has been able to be out of bed, is often the cause of dissatisfaction on the part of the patient and her friends, and results in needless dissatisfaction with the surgeon or the hospital.

The following abstracted case records from patients in the Frances E. Willard National Temperance Hospital will serve to further demonstrate the value of the post-operative treatment in uncomplicated cases.

Mrs. C. K., aged 62, large and obese. Diagnosis, cholecystitis with gall-stones.

Operation: Cholecystectomy and appendectomy; no drainage.

Anesthesia: Scopolamin 3-100 gr.; morphin ½ gr., chloroform for relaxation.

Post-operative orders: Five pints of tap water given by rectum in the operating room; five pints of tap water given by

Digitized by Google

rectum half hour later. Entire ten pints retained.

Morphin 1-32 every four hours for forty hours. Head of the bed elevated.

Day of operation: Four and a half hours after operation vomited a small amount; patient perspiring profusely; hands cold and clammy; pulse 60; gastric lavage given general condition good, though the patient was restless.

Patient passed 8 oz. urine spontaneously in twenty-four hours. Pulse 60 to 96; temp. 97.4° to 98.4°; R. 28.

First day post-operative: Had a fairly comfortable night. No thirst, no gas pains at night. Gas pain in the morning relieved by S.S. enema and an ampule of pituitrin, cool water and fruit juice. Passed spontaneously 13 ozs. of urine in three urinations. Pulse 76 to 100; temp. 99.6° to 101.6°; R. 26 to 30.

Second day post-operative: Fairly comfortable night. Voided several times. Pulse 84-88; temp. 98.8° to 99.8°; R. 22-32.

Third day post-operative: Fairly comfortable night. Had two enemata for gas, each time getting 1 c.c. of pituitrin. Liquids all kinds, except milk. Voided several times. Pulse 88-94; temp. 98.8°-99°; R. 24-26.

Fourth day post-operative: Fairly comfortable night. Very comfortable day. All liquids with toast and crackers. Voided several times. Pulse 88-96; temp. 99°; R. 24.

Fifth day post-operative: Slept little, but no pain. Had liquid bowel movement without cathartic. Voided several times. Very comfortable day. Pulse 86-88; temp. 98.2°-99°.

Sixth day post-operative: Slept well. Large formed bowel movement. Full diet. Voided seven times. Pulse 84-88; temp. 98.4°-98.6°.

Seventh day post-operative: Slept well. No pain. Voided six times. Simple enema with fair results and much gas; had no complaint of gas pains. Pulse 88-96; temp. 98.4°-99°.

Eighth day post-operative: Slept very well. Voided four times. No pain. No bowel movement. Aromatic cascara given at night. Pulse 90-94; temp. 99°-99.2°.

Sutures removed on tenth day; wound healed by first intention. Discharged from the hospital on the 15th day after operation in good condition.

Mrs. E. G., aged 53, much emaciated. Diagnosis, obstruction due to carcinoma of the pyloric end of the stomach.

Operation: Palliative gastroenterostomy.

Anesthesia: Morphin 3/8 gr.; scopolamin 3-100 gr., some chloroform for relaxation.

Post-operative orders: Tap water, five pints, given in the operating room. Tap water, five pints, given in patient's room expelled; repeated and retained.

Morphin 1-64 gr., scopolamin 1-400 gr. every four hours for twelve hours.

Day of operation: Vomited once (thick material, probably the bismuth meal given ten days previously). Nurse reported a convulsion lasting two minutes in the evening. Bladder emptied spontaneously during the convulsion. Became conscious at 4 p. m., seven hours after operation. One pint of tap water by rectum every three hours. Pulse 96-108; temp. 98.4°-100.4°; R. 12-24.

First day post-operative: Vomited once, large amount of retained bismuth. Passed spontaneously 96 ozs. in six urinations. Comfortable day; no pain. Tap water continued; no pain. Pulse 98-106; temp. 100°; R. 24-26.

Second day post-operative: Comfortable night. No pain. Passed spontaneously 65 ozs. in five urinations. Sterile water 1 oz. every hour by mouth. Tap water continued. Normal bowel movement. Pulse 90-96; temp. 98.6°-99°; R. 22-24.

Third day post-operative: Slept little, but was comfortable. Tap water continued. Diluted milk 1 oz. every hour. Sterile water ad libitum. Voided 30 ozs. in four urinations. Pulse 90; temp. 98.6°-99°; R. 24.

Fourth day post-operative: Comfortable night. Tap water continued. Weak tea, coffee, diluted milk in 5 oz. quantities. Voided three times. Flushing of bowel; result fair.

Fifth day post-operative: Comfortable night, but slept little. Pulse somewhat intermittent. Tap water resumed. Voided twice. Liquid diet, 4 ozs. at a time. Patient very comfortable. Pulse 84-88; temp. 98°-99°; R. 22-24.

Sixth day post-operative: Slept quite well. Very comfortable. Flushing given twice with very large (unusual) bowel movement; followed by three large movements; voided six times. All liquids in amounts desired. Pulse much improved. Pulse 84-92; temp. 98.2°-98.8°; R. 22-24.

Sutures removed on the tenth day; wound well healed; patient still in the hospital.

Miss M. B., aged 37; very nervous and restless. Diagnosis, hyperthyroidism; goiter medium size.

Digitized by Google

Operation: Thyroidectomy entire right and middle lobe.

Anesthesia: Morphin, ¾ gr., scopolamin 3-100, small amount of chloroform.

Post-operative orders: No tap water given. Morphin, gr. 1-32; scopolamin, gr. 1-200 every four hours for thirty-six hours.

Day of operation: Very nervous. Vomited seven times. Had one bowel movement. Voided 3 ozs. Pulse 96-120; temp. 98.6°; R. 14-20.

First day post-operative: Vomited four times. Had fairly comfortable night. No bowel movement. Voided eleven times, not measured. Liquid diet. Pulse 100-108; temp. 98.2°-99°.

Second day post-operative: Vomited twice. Night not so comfortable. Voided three times. No bowel movement. Pulse 104-112; temp. 98-99.2°; R. 20.

Third day post-operative: Not very comfortable night. Voided twice. No emesis. Full diet; ate solid food. Comfortable day. Pulse 112-104; temp. 98.8°-100°; R. 20.

Fourth day post-operative: Slept 9 p.m. until 6 a.m. Feels well. Voided twice. No bowel movement; no emesis. Pulse 102-104; temp. 98.8°-100°; R. 20.

Fifth day post-operative: Slept well. Voided four times. Had normal bowel movement. Pulse 100-96; temp. 98.8°-99°; R. 20.

Sixth day post-operative: Slept well. Feels well. Pulse 100-88; temp. 98.4°-99.2°; R. 20.

Seventh day post-operative: Feels very well. Pulse 88-84; temp. 98.6°-99.2°; R. 20.

Discharged on tenth day in excellent condition.

Mrs. S. F., aged 37; thin and poor color. Diagnosis adenopapillomatous cysts of both ovaries (size of adult head); small multiple fibroids of uterus; chronic appendicitis.

Operation: Pan-hysterectomy and appendectomy.

Anesthesia: Morphin ½ gr., scopolamin 3-100.

Post-operative orders: In operating room five pints of tap water were given by rectum.

Day of operation: Immediately on being put to bed, five pints of tap water by rectum. (These five quarts were retained.) Morphin 1-32, scopolamin gr. 1-200 were given every four hours for thirty-six hours. In the afternoon small amounts of water were given by mouth. Early in the evening 12 ozs. urine were passed. The night was comfortable, except for vomiting, which occurred four or five times.

First day post-operative: No vomiting. No gas pains. Voided 12 ozs. Had weak tea and hot water. Pulse 80-100; temp. 100-101°; R. 20-22.

Second day post-operative: Had a fairly comfortable night. No vomiting. No gas pains. Low fluid intake. Voided 7 ozs. Pulse 96-104; temp. 101-102°; R. 22-24.

Third day post-operative: Had a comfortable night. All liquids for diet. Urinary output 30 ozs. Pulse 90-100; temp. 100.2°-102°; R. 20-22.

Fourth day post-operative: Awake once during the night. Very comfortable. Pulse 88-90; temp. 99.8°-101.8°; R. 20-24.

Fifth day post-operative: Very comfortable. Soft diet. Pulse 80-88; temp. 100.4°-102.4°; R. 20-24.

Sixth day post-operative: Very comfortable. Two liquid bowel movements with no cathartic or enema. Pulse 84-98; temp. 99.4°-100°; R. 20-24.

Seventh day post-operative: Comfortable. One semi-solid bowel movement with no cathartic. Pulse 80-84; temp. 99.2°-99.4°; R. 20.

Discharged on twenty-first day in very good condition.

Temperature normal on eighth day. Sutures removed on tenth day; wound healed by first intention.

Mrs. B. S., aged 31 years. Diagnosis, complete procidentia uteri.

Operation: Amputation of cervix; subserous hysterectomy with attaching broad ligaments around recti muscles; appendectomy.

Anesthesia: Morphin, gr. ½; scopolamin, gr. 3-100, and a little chloroform.

Post-operative orders: Five pints tap water by bowel in O.R.; retained. Morphin, gr. 1-32 every four hours for thirty-six hours. "

Day of operation: Vomited twice. Voided 5 ozs. Fairly comfortable. Had hot water and tea. No gas pains. Pulse 72-100; temp. 97.8°-98.4°; R. 20-24.

First day post-operative: Slept little. Some nausea; no vomiting. Voided 58 ozs. in seven urinations. Comfortable day. No gas pains. Pulse 98-100; temp. 98.2°-98.8°; R. 20.

Second day post-operative: Slept well. Feels well. Menstruating. No nausea, no gas pains. Full liquid diet. Voided 26 ozs. Pulse 90-100; temp. 98.2°-98.6°; R. 20.

Third day post-operative: Slept well. Condition very good. Vaginal packing removed. Voided three times. Pulse 92-96; temp. 98.2°-98.6°; R. 20.

Digitized by Google

Fourth day post-operative: Slept very well. Soft diet. Is very comfortable. Voided four times. Pulse 88-90; temp. 98-98.2°; R. 20.

Fifth day post-operative: Slept well. Condition excellent. Voided five times. Had large movement after S.S. enema, and another one later. Pulse 88; temp. 98.2°-98.6°; R. 20.

Sixth day post-operative: Slept well. Condition very good. Voided four times. Pulse 88-96; temp. 98.6°; R. 20.

Seventh day post-operative: Slept well. Had slight pain in side; relieved by heat. S.S. enema given with good results. Very comfortable. Cathartic given at night. Pulse 88; temp. 98.2°-98.6°; R. 20.

Discharged from hospital in excellent condition on the seventeenth day after operation. Stitches removed on tenth day; wound healed by first intention.

These cases were selected with no other idea than to show the treatment in a variety of cases. The spontaneous action of bowels and bladder, the comparative freedom from pain and absence of medication is a feature in each case.

In the patients who are given and retain five quarts of water by bowel, the majority pass less than one quart by the kidneys in the first two or three days.

This post-operative treatment reduces the work of the nurses and internes to a minimum, and should be classed with preventive treatment rather than post-operative treatment.

Elective Version

DR. IRVING W. POTTER, of Buffalo, is the originator of the term "elective version," which is really version without indication. To him belongs the credit of having developed a technic for version, and of having robbed that maneuver of its old-time terrors relative to the danger to the child. No man or woman, living or dead, has ever performed version as many times as he has. He is the great master of this art.

Of all the arguments that are presented against elective version, the one most frequently met is that it is contrary to nature. That inasmuch as the majority of children are born with head presentation, that must be normal, and therefore the best way. When one visits Dr. Potter's clinic and sees him do version and extraction, this argument makes you feel that Dr. Potter belongs to that progressive group of geniuses who came on earth prematurely. Who can dispute it if the assertion is made that we are in the beginning of a transition period indicated by breech presentation occurring three times in every 100 cases; that at the end of this period in the far distant future we will find cephalic presentation three times in 100 cases, and the great majority will be breech. Surely nature has always taken care to preserve the highest types, and why should she not take care to preserve that part which makes type, i. e., the brain?

Although this may be fantastic, it surely is an answer to those who fall back on the nature argument. In truth, any one seeing Dr. Potter deliver by version and extraction can not help but feel that it is more simple, more normal and more natural than any cephalic birth he ever witnessed. It falls in line with civilization, which is, in reality, a subjugation of natural forces for the benefit of mankind.

His great experience has led him to develop a special technic, and by this technic he is able to overcome the great objections that have been advanced against version. One of the most important parts of the technic is what Dr. Potter calls the ironing out of the perineum. When the cervix is fully dilated and the patient completely under the influence of chloroform, Dr. Potter inserts one or two fingers in the vagina just back of the cervix and makes slow and continuous pressure backward and downward to and on the perineum. This movement is continued with three and then with four fingers, and finally the whole hand is inserted in the vagina. This movement is kept up until the muscles of the vagina and perineum are as completely relaxed as they are immediately after the birth of a child, rendering the birth canal as easily passable as in the case of a second twin. This may take one-half hour or longer. The next point in technic is to determine the position of the child and the placenta; then both feet are grasped by the left hand, which is in the uterine cavity, taking care that the feet are not crossed. The feet are now brought to the vulva, and the child is slowly expelled or extracted, until the buttocks are entirely outside the vulva. Now comes a short delay to prevent the flying ribs from being caught at the brim of the pelvis; the back is now rotated to a position under the symphysis and the child comes to lie in the transverse diameter of the pelvis. In extracting the arms, first the scapula, and then the shoulder,

Digitized by Google

and finally the elbow is slipped from under the symphysis. The head is delivered by the Smellie Veit maneuver, but with great deliberation and care, so that the perineum may not suffer a laceration. After delivery, the child, which is quite limp and apparently in great need of some of the numerous methods of resuscitation, is laid upon the mother's abdomen, and after pulsation has ceased in the cord, the cord is cut and tied. About this time, which is from one to two minutes after the child has been delivered, the child is seen to gasp. This will be followed by another gasping breath. The nurse now takes the child, and, when seen fifteen minutes later, it is breathing regularly or crying. As soon as the placenta is separated, it is expressed by a light Crede. The use of sterile green soap as a lubricant for gloves, vagina and vulva, the management of linen to absorb the discharges and the position of the patient must be seen to be understood and appreciated.

This description has been written after having observed Dr. Potter deliver ten babies by version or extraction. Two were face presentations and one of them mento-posterior. Another was delivery of twins, both footlings; four were occipito-posterior. Three of the patients were primiparæ and six multiparæ. In none did the perineum suffer the slightest abrasion, nor were there any hemorrhages.

If an obstetrician does not believe in version, he should go to Buffalo and see how it should be performed. If he does believe in version, he should go and see it done better than he can do it.

CHILD WELFARE WORK IN LONDON

By DR. MATILDA HUNT, M.A., B.Sc., M.D., B.S., D.P.H.
London, England

EVERY new movement in England has its beginning in London, and this was the case with the crusade for protection and preservation of infant life. Wars have unepected and far-reaching results. The losses in the Boer War caused a stir of ideas along the line of life conservation, but it is to the Great War of recent days that we owe a tremendous impetus in the multiplication of every form of welfare work and the investing of the movement with national importance. As the death-toll on the battlefields grew heavier, the fight against infant mortality became keener, till it seemed like a race against ruin. Not only that, but the actual infantile mortality (which gave rise to the considered statement that a soldier in the trenches had a better chance of life than a baby at home) made the work one of urgency.

Infant Welfare Centers.—There has been a dispute as to which was the first infant welfare center in the Kingdom; but, if by welfare center is meant a place where healthy infants are brought to be kept well, and not, except incidentally, a place for the treatment of sick babies, then the honor belongs to St. Pancras School for Mothers. This school, with which I have had the privilege of being connected since 1910, still holds its own, as will be seen from the fact that it has won the National Mothercraft Challenge Shield for all England for two years in open competition. This center was started by the two daughters of Sir Percy Bunking, the editor of the "Contemporary Review." They had a powerful helper in Dr. Sykes, the far-sighted medical officer for the Borough, and a loyal and faithful ally in the Hon. Mrs. Bertrand Russell, an American woman, who is still the mainstay of the institution. The history of this school for mothers, which was opened in July, 1907, is like that of similar institutions, and its methods are typical of all. It began with infant consultations, which were presently combined with consultations for the pre-school child. Later on maternity clinics were opened. Round the medical nucleus there aggregated various social and educational activities, such as classes in cookery, laundry work, knitting, sewing, and renovating garments; demonstrations in infant care, dinners for mothers and toddlers, milk for babies, outings and holiday arrangements. The basis of all this welfare work is the visiting by the school nurse after the 10th day from birth, on receipt of a birth notification from the Town Hall of the Borough. The Act for the Notification of Births insists on some responsible person—doctor, nurse, father or neighbor—notifying the birth at the Town Hall within thirty-six hours. This information is sent (in progressive boroughs) to the superintendent of the school for mothers in that area, and the whole series of activities is presently set going. The child and mother belong for ten days, or longer when necessary, to those who have conducted the confinement. Then the Infant Welfare Nurse looks in. Of course, attendance at a center is voluntary; but persistent visiting and disinterested friendship frequently bring the mother in. Once there, she almost invariably stays.

Digitized by Google

The Mother.—We began with the infant, then went on through all the stages of pre-school life, and got the child ready to be handed over to the school doctor, and then we realized we had to go back to the source—the mother, and the mother during the ante-natal period—and that as early as possible. We were thus able to plan our work with a certain degree of precision. Though we could not eliminate overwork, mental strain, bad housing, bad physical habits, and poverty, we did what we could to improve the physical condition by good dinners at low prices; by various social features to make life more cheerful, and by advice and help to lessen mental tension. We have now, for the helping of the mother, maternity clinics—ante and post-natal—arrangements for confinement, home helps, cheap dinners, assistance with babies' and personal outfits, and convalescent homes.

The Infant.—For the baby there are the midwife, the health visitor, and the infant welfare center, where the child is weighed, examined, and treated if this is necessary. Then there are milk supplies, special hospital arrangements for ailments, and occasionally foster mothers.

The Toddler and Pre-School Child.—For the toddler and pre-school child the same arrangements obtain in the consultations, clinics, hospitals (special and general), holiday homes, and cheap dinners. Throughout this period we keep our records, with a view to school life, the forms being prescribed by the education authority. In this way continuity of treatment and uniformity of standard are secured.

Activities at a Welfare Center.—All this work is conducted at or from a school for mothers, and I may here give a list of the activities that I have alluded to under several heads. They are: home visiting by trained nurses; infants', toddlers', and mothers' consultations and clinics; classes in every subject of practical use to mothers; provision of cheap dinners for mothers and pre-school children, and of cheap milk or glasco for infants; social outings; assistance with clothing, medical, and surgical appliances; arrangements for confinements, for convalescent and holiday homes; and last, but not least, fathers' clubs. During the war a good deal of business help was given to enable the mothers to get their separation allowance. In a few instances we tried our hand at making war matches.

Day Nurseries.—These existed in a casual, scattered fashion, till the Society of Day Nurseries was organized in 1908. This society owes very much of its progress to Lady Helmsley, the present vice-chairman. It sought to put day nurseries on a systematic basis, and establish a uniform standard, making this higher and better as time went on. In the day nurseries of London children are admitted from 2 months to 5 years of age, which is the school entry age. Opinion is divided regarding the day nursery as an institution. I must say that in the economic fluctuations so common among the poor, it is, at least now, a necessity—not a necessary evil. The day nurseries have befriended many a distracted and poverty-stricken mother, and through her, her family. The hours at day nurseries are supposed to be from 7 to 7, but usually the day is shorter. The children are, in a good many cases, bathed on arrival, and put into nursery uniform, while their own clothing is stacked in a disinfecting cupboard. A light meal is given, then follow exercise or play, a rest, the mid-day meal, and an after-dinner nap. A supper of bread and milk is followed by the process of being dressed for their mothers' arrival. Some arrangement for the detection of and isolation for, infectious diseases is one of the features of every good day nursery. In some there is teaching on the kindergarten method. Each is supposed to be regularly visited by a medical attendant. During the war many day nurseries were opened for the children of munition workers. Some of these were run at night also. Their great increase signified, of course, the growth of a community of female workers.

Homes.—There are many on the outskirts of London, and some in London, intended for holiday and convalescent folk—mothers and children. Provision is also made by Government bodies, such as the London County Council and the Metropolitan Asylums Board, for homes or asylums for children, physically or mentally defective, diseased or destitute. There are special homes for infants with ophthalmia neonatorium.

Play Centers.—The movement for these was initiated by the late Mr. Humphrey Ward, the novelist, and they are slowly but surely increasing in number. Every London County Council has large flagged courtyards and covered playing sheds, and so have a good many private schools. But supervised play on Saturday afternoons, out of school hours, and for the poorest children, are the motives underlying the

Digitized by Google

work of the play centers. More than play is found there. There is the touch of human kindness. Songs, music, table games, telling of stories figure at these places.

School Treatment Centers. For the welfare of the school child in London there is a system which works through the teacher and school nurse, who detect the early signs of unfitness for work, or actual sickness, and report to the school doctor and parents. The visiting school doctor is concerned with the periodic, physical examination of the children as regards sight, hearing, nutrition and mental condition. When disease or defects are discovered these school children in a London borough are taken to a central school treatment center, run under the County Council by a rota of selected local practitioners. Here all the necessary medical treatment and minor surgical operations are put through, and arrangements are made for hospital treatment, when needed. Provision for glasses, for stopping teeth, for surgical apparatus, for extra nourishment, and for convalescence and rest are undertaken by the Children's Care Committee connected with the center.

The central organization dealing with child-welfare work not only in London, but throughout England and Ireland, is the National League for Health, Maternity and Child Welfare, working through its nine component societies. These sections regularly send in quarterly reports and plans for the next three months, which are discussed in committee. The result is a satisfactory mapping out of the ground to be covered by each section, the prevention of overlapping, and a helpful interchange of ideas.

Very recently the Red Cross Central Council for Infant and Child Welfare has federated all the societies interested in maternal and child welfare, which can claim to be run on national lines. In this Federation, besides the National League above mentioned, there are societies whose scope takes in children up to 16 years of age. Apart from these voluntary and subsidized institutions are the public bodies functioning in the country such as the Metropolitan Asylums Board with its homes and hospitals for children, and the London County Council with its detailed programme for the welfare of children of school age.

Congressional Committee of Representatives.—A step of great significance has been taken by the National League of Women Voters in the formation of a joint congressional committee of representatives from most of the national women's organizations, including the National League of Women Voters, the General Federation of Women's Clubs, the National Council of Women, the Women's Christian Temperance Union, National Women's Trade Union League, the National Consumers' League, the National Congress of Mothers and Parent Teachers' Associations, the Association of College Alumnæ, the American Economics Association, the National Federation of Business and Professional Women's Clubs.

It is the first time in the history of the country that such a union has been effected, and that it takes place in the interests of legislation for which women feel a special responsibility augurs well for the future. Mrs. Maud Wood Park, national chairman of the League of Women Voters, was elected permanent chairman of the committee which, conservatively estimated, represents 10,000,000 women voters.

The committee is maintaining a permanent legislative committee at Washington, which is augmented from time to time by volunteers from the various States.

Some of the more important bills on the committee's programme are the Sheppard-Towner Bill for protection of maternity and infancy, with eight organizations pledged to its support; the Smith-Towner Bill to create a department of education and provide Federal co-operation to the States for the removal of illiteracy, for Americanization, for equalizing educational opportunities, for physical education, including health education and sanitation, and for preparation of teachers, actively supported by seven organizations; the Fess Amendment to the Smith-Hughes Bill to promote vocational education and equalize the expenditures for home economic education with those for agricultural education, backed by six organizations with the probability that one or two more will include the measure in their programmes; the Gronna (Kenyon-Kendrick) Bill to regulate the meat packers, backed by four organizations; the Curtis-Gard Child Labor Bill for the District of Columbia, supported by four organizations. Six organizations are interested in the principle of independent citizenship for women, for which several bills are proposed.

Digitized by Google

SPECIAL REPORT

Annual Meeting of the House of Delegates of Woman's Foundation of Health in New York, N. Y.

By Dr. MARTHA TRACY, Dean
The Woman's Medical College, Philadelphia

THE Annual Meeting of the House of Delegates of the Woman's Foundation for Health was held in New York on January 6-7-8, 1921.

In attendance were delegates representing the following fifteen national organizations of women:

1. General Federation of Women's Clubs.
2. National League of Business and Professional Women.
3. National League of Girls' Clubs.
4. National Women's Christian Temperance Union.
5. National League of Women Voters.
6. National Women's Trade Union League.
7. National Board Young Women's Christian Associations.
8. National Conference of Deans of Women.
9. National Association of Collegiate Alumnæ.
10. Woman's Division of the National Civic Federation.
11. Medical Women's National Association.
12. National Council of Jewish Women.
13. National Council of Women.
14. National Congress of Mothers and Parent-Teacher Associations.
15. National Association of University Deans.

The Medical Women's National Association was represented by the following delegates:

Dr. Elizabeth Thelberg, Vassar College, Poughkeepsie, N. Y.
Dr. Alice P. Ford, New Haven, Conn.
Dr. Marie L. Chard, New York City.
Dr. Isabelle T. Smart, New York City.
Dr. Martha Tracy, Philadelphia, Pa.

To those unfamiliar with the purpose and organization of the Foundation the accompanying diagram will be of interest, as will also the declaration of purpose which was presented for acceptance by the House of Delegates toward the end of the session, and copied in full later.

A most gracious greeting from Mrs. James S. Cushman, the president of the Foundation, expressed her gratification that so unusual and representative a body of women were here assembled, through the courtesy of the National Board of the Young Women's Christian Association, in the spacious assembly room at 600 Lexington Avenue, for discussion of a subject of such fundamental importance, yet heretofore so inadequately appreciated — the subject of Health as a right and an obligation of every woman.

A preliminary executive session followed which resulted in the appointment of committees to attend to certain necessary matters relating to the meeting, as follows: Committees on By-laws; Nomination of Officers; on Admission of Organizations; on Resolutions; and on Correlation of Programs.

Brief reports followed from the Board of Trustees by Mrs. Elmer Blair and by the executive secretary, Dr. Josephine H. Kenyon.

Dr. Lenora L. Meanes then addressed the meeting on the subject, "Working Together for Health."

By the use of very striking diagrams which will be made available shortly in pamphlet form, Dr. Meanes presented the point of view of the Foundation toward health as a positive fact rather than as an absence of disease.

She showed how medical science has progressed from ancient times when superstition reigned and treatment of symptoms was but beginning. In the later mediæval era symptomatic treatment had extended, but in an unscientific manner, with corrective and curative procedures appearing suggestively upon the horizon.

Later science approached and disease diminished as treatment became more effective, corrective, and curative measures were further developed and preventive measures appeared upon the scene.

Finally, today, becoming dissatisfied with treatment of symptoms, with curative and corrective measures only, and even with preventive measures directed solely from the point of view of expectancy of disease, we are launching upon a new program—that of positive or constructive health, with the stress laid upon the individual's responsibility for her own well-being.

With clear recognition of the imperative need of scientific corrective and curative medicine it is our purpose to create an

Digitized by Google

appreciation of and desire to acquire complete and abounding personal health—physical, mental and spiritual.

Following the noon recess, Dr. Augusta Rucker and Dr. William A. White developed further the subject of personal health—physical and mental—as the fundamental condition for a happy and fruitful life.

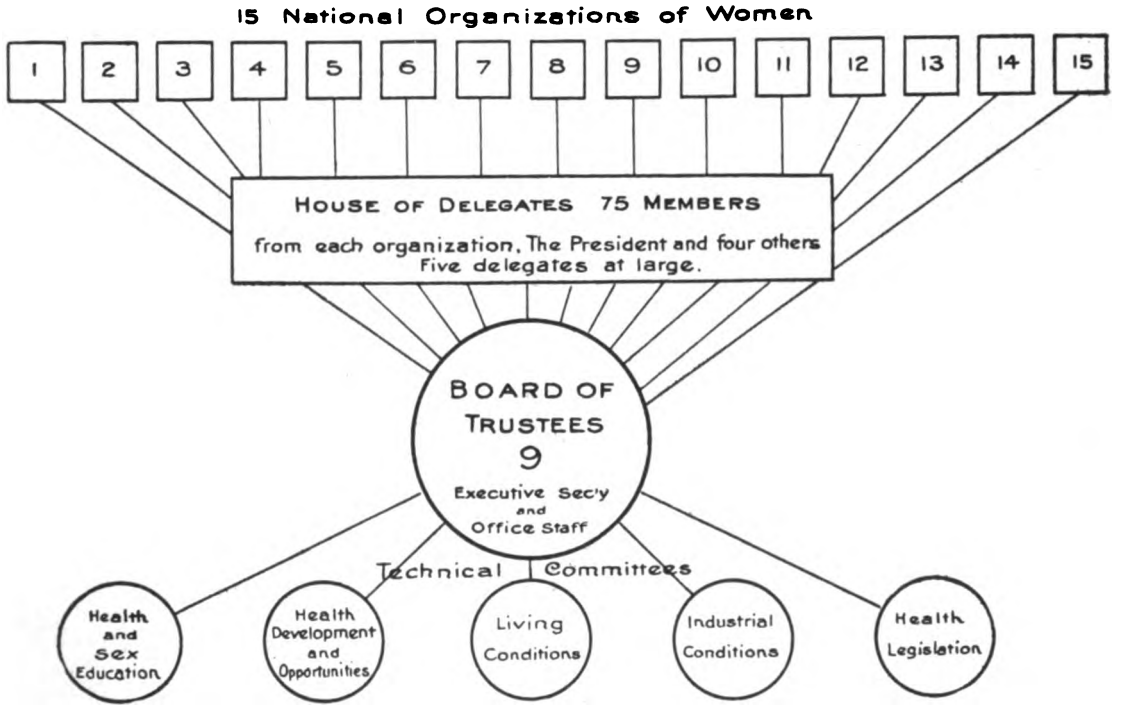
On the morning of January 7th the program opened with three minute reports from representatives of the organizations taking part, concerning the health work at present conducted by their organizations. It was inspiring to learn what excellent programs are already mapped out, with a minimum of overlapping in scope, or in the type of audiences reached.

On behalf of the Medical Women's National Association, Dr. Tracy spoke of the Association's inception at the beginning of the war, and its chief work up to this time in the service given in France and Serbia by the War Service Committee, known as the American Women's Hospitals. The time has now come, she said, for this organized group of medical women to take part in health movements in the United States, and she expressed the hope that as a part of this Foundation for Health the medical women might serve by developing among physicians an understanding of the new point of view toward constructive health, and by making possible the training of women in the special technique found most advantageous in taking the "health inventory," and in guiding women and girls into habits of living which will give to them this fuller life.

Dr. Kristine Mann then described in some detail the conduct of the Health

THE WOMEN'S FOUNDATION FOR HEALTH

A CO-OPERATIVE BODY COMPOSED OF



Officers

Mrs. James S. Cushman, President.
Mrs. Philip North Moore, Vice-President.
Mrs. W. F. Dummer, Secretary-Treasurer.

Board of Trustees

Mrs. Edward R. Hewitt, Chairman
Mrs. Elmer Blair — Mrs. Philip N. Moore
Mrs. Alexander Kohut — Miss Anna A. Gordon
Dr. Anna L. Brown — Miss Teresa R. O'Donohue

Dr. Josephine Hemenway Kenyon, Executive Secretary,
Dr. Kristine Mann, Secretary, 129 East 52d Street, New York.

Digitized by Google

Foundation Center in New York City which was established by the National Board of the Young Women's Christian Association, but which was in July, 1920, taken over by the Women's Foundation for Health.

The Center is now receiving young women from many of the department stores and factories in New York, giving each a thorough physical examination, pointing out what corrective measures, if any, are needed, and referring to the home physician or clinic for such medical advice and attention.

The girl is then given the opportunity to attend the gymnasium at the center, and, under personal direction, learn to carry out such exercises and regimes as will develop her towards the fullest possible health. A charge of five dollars is made for the examination and five gymnasium periods—and the price is gladly paid.

The description of the good accomplished in certain specific cases indicated clearly the wonderful value of this method, and the great appreciation by the girls of the opportunity offered.

Inadequate financing limits the extension of the work distressingly.

Miss Harriet Wilde and Miss E. K. Bertine, Physical Directors of the Foundation Center, with the help of some of their pupils from the center, illustrated methods used in making the "health inventory," and in conducting exercises for the correction of certain conditions such as constipation and dysmenorrhœa.

During the noon recess a moving picture film, entitled "Foot Follies," was shown, and an exhibit illustrated the correct shoes now attainable from a number of manufacturers, who have awakened to the fact that the endorsement of the Young Women's Christian Association is becoming an important factor in the sale of these shoes.

On Friday afternoon and Saturday morning occurred the election of officers and trustees of the Foundation. In the opinion of all it was most important to retain the present officers until the Foundation is more completely established. Consequently, with the exception of one or two names withdrawn because of inability to serve, all officers were re-elected.

Reports of the several committees were presented, but are not yet in hand for copy.

Then followed discussion of the program of work for the coming year, the ways and means for financing and promoting the propaganda of the Foundation, and the part which each organization could play in co-operating to carry out the purposes outlined.

The following statement was adopted as a brief expression of the Foundation's purpose:

"The fundamental belief of the Women's Foundation for Health is that health is normal and realizable.

"It defines health as the condition of being which allows an individual the full development and mastery of herself—the powers of her physical body, her mental processes, her emotional force, her spiritual expression.

"Fully recognizing the importance of proper treatment of disease when it occurs, and of prevention, the Foundation proposes education in the building of health.

"Recognizing also the duty of society to secure sanitary, hygienic, economic and recreational conditions favorable to well being, it regards the attainment of health as a matter of individual and personal responsibility."

A further statement presented as a preamble to the by-laws reads:

"The Women's Foundation for Health affirms the importance of recognizing:

"1. That health should be emphasized as a positive fact in life, and not only as a fight against disease.

"2. That there shall be a frank recognition of the importance of emotional health as well as of so-called physical health in the education of the boy and girl.

"3. That scientific data on these matters has now reached a point where it is available for lay as well as professional use.

"4. That a receptive attitude toward these principles is needed on the part of lay women in order that scientific knowledge may be widely spread.

"5. That the co-operative effort of all women is needed not only to carry out a sufficiently far-reaching educational program, but also to open up opportunities by means of which these principles may become the practical working basis of everyday life."

Accepting these fundamental principles as a basis for activity, the Foundation for Health plans to carry out its purposes: (1) by maintaining for experimentation and demonstration the Health Foundation Center now conducted in New York; (2) by issuing an authoritative series of pamphlets describing the Foundation and its pur-

Digitized by Google

poses, describing in detail, with budget statement, etc., the organization of a Foundation Center for the use of local co-operating groups of women who may desire to establish such centers in their home cities; discussing "Nutrition," "Mental Health," and often matters pertinent to the purpose of the Foundation; (3) by maintaining mobile units of two or three trained women who may go to Cities where it may be planned to establish a Health Foundation Center, to assist in organizing and starting such work; and (4) the maintenance of a central office staff to correlate the other activities and to cooperate continually with the local units of the National organization united in the Foundation, wherever help can be rendered in developing programs, distributing pamphlets, films, etc.

The series of pamphlets proposed is to be issued with the co-operation of the Council of Health and Public Instruction of the American Medical Association, and the Bureau of Social Education of the National Board of the Young Women's Christian Association.

Men and women of national reputation are at present engaged in preparing manuscripts so that the first of these pamphlets may be looked for shortly, and will amplfy and clarify the material briefly stated in the above report.

At noon on Saturday the meeting closed with a delightful luncheon tendered by Mrs. Cushman, the president of the Foundation, to the delegates and other friends.

All who were privileged to serve as delegates to the meeting felt amply repaid by the inspiration caught from such a representative group of women, each expressing in the heartiest way the enthusiasm of her constituents to forward as fully as possible the program of the Women's Foundation for Health.

A decrease of 29 percent in the number of children as compared with the number of the preceding year is shown by the records of the police department of Boston. Reports of physical neglect of children due to drunkenness, for the months of July and August, 1920, are about one-third the number of the corresponding months of 1916. The attendance officer of the public schools reports a marked decrease in truancy during the year ending June 1, 1920, which he attributes in large measure to prohibition.

DR. NORTON'S EXPERIENCES IN THE NEAR EAST

By MARY LENA WILSON

DR. BLANCHE NORTON

PERHAPS the greatest distinction that has yet been conferred upon an American woman physician is the bestowal of the Greek War Cross on Dr. Blanche Norton, medical worker with the Near East Relief in Trebizond and Constantinople. Dr. Norton, who has just returned to this country, is the first and only woman ever to receive this decoration, and the honor conferred upon her is a tribute not only to her, but to women doctors the world over.

The saying that there is no royal road to success applies very aptly to Dr. Norton. The work with the Greek refugees suffering from trachoma, for which she received her decoration, was accomplished under great difficulties and often amidst profound discouragements. In a city ruled over by the most ignorant and cruel tyrant since the days of the ancient Romans, and surrounded by tanks of petrol which said tyrant constantly threatened to set fire to, and infested with black-garbed bandits

Digitized by Google

who paraded the streets armed with daggers and guns, may sound exciting, but it is not always comfortable. To go from this to a little attic room in a side street of Constantinople, there to be isolated for five months undergoing the painful treatment for trachoma, has not even the virtue of excitement.

But of her own personal experiences, Dr. Norton tells little. As she carries her War Cross in the pocket of her uniform, so does she pass quickly over her own part in the very remarkable experiences through which she has been passing.

"You should have seen the poor pitiful little children, isolated in a cold, dark cellar in the orphanage at Kerassunde!" she exclaimed. "Nearly a hundred of these little tots were crowded together in these wretched rooms under the ground where the native officials had put them, believing that they were thus carrying out the one known mode of treatment of trachoma-isolation. Many of these children were already totally blind—children who might easily have been cured had they received the proper treatment in time. Almost all of them had defective eyesight, and every one was sick and wretched. There was little food for them to eat, nowhere near adequate clothing to protect them from the intense cold of their basement rooms. There was nothing for them to do, nothing to look at.

"The eagerness with which these children put themselves in my hands for treatment was pathetic. To them America is a magic word. What our country has done in feeding and clothing the wretched refugee population of the Near East has won for her a position only 'a little lower than the angels.' The faith of the children was only equaled by their courage and patience under treatment. But to no one who has not himself had trachoma, and undergone this excruciatingly painful treatment, will this convey an adequate idea. The only means as yet found for the cure of this disease, besides isolation, is cauterization of the eyelids, one of the most intensely distressing sensations, and one of the most prolonged that I know of. Yet little children of 10 and 12 walked miles to the relief station twice a week to receive treatments at my clinic.

"It was just after I had gotten my work under way in Kerassunde, had housed the children comfortably, and had established clinics for those not living in the orphanage, that the Greek advance began. Far from proving a boon to the Greek population of Kerassunde, it resulted in a veritable reign of terror. Osman Agha, the one-legged captain silver ruler of the region, immediately issued orders forbidding all Greeks to move in or out of the town, to send or receive mail, to leave their homes after dark—in short, to move a finger without permission. To enforce his orders he brought in his army of bandits. And regular comic opera bandits they were, too. Arrayed in tight-fitting black, topped by a huge black headdress, with a wreath of daggers about their waists, and an enormous gun slung over their shoulders, they strutted through the town, striking terror to every Greek in the place.

"As if this was not enough, Osman placed tanks of petrol about the city and threatened to set them on fire if there was any sign of resistance on the part of the Greeks. What hope of Allied assistance by way of the Black Sea that might have been expected was soon dispelled by Osman's brutal declaration that if any Allied ship so much as showed its sail over the horizon every Greek in Kerassunde would be dead before it could reach the port.

"I was, at this time the only Anglo-Saxon in the whole district, and I felt none too safe. I was pretty sure that the name of America would be respected, but with a villain like Osman Agha, who recognizes no law, not even that of the Nationalist leader, Mustapha Kemal, I could not be sure. I adopted a policy of smiling neutrality and worked with double zeal."

At this point Dr. Norton contracted trachoma from one of her little patients who sneezed in her face, blowing a particle of the infection into her eyes. At the end of three weeks it had reached such a stage that she was forced to ask permission of Osman to leave for Constantinople, where she could be treated. Whatever his course of reasoning, possibly an antiquated conception of the importance of women, he allowed her to depart for Constantinople.

For nearly five months Dr. Norton was isolated in a little attic room in Constantinople, with little to relieve the loneliness and monotony but her regular treatments, which she confessed were painful beyond belief. "It persuaded me," she said, "that every physician should have every disease which he is attempting to treat. Only then do they come to a complete knowledge of the ailment and a full appreciation of the sufferings entailed.

"Trachoma is, I believe, one of the very most enervating and destructive of diseases," she continued. "From the very

Digitized by Google

first it causes nervousness, weakness and general debility. Later it results in partial or complete blindness. While it is not particularly painful in itself, its treatment is frightfully so, and as yet no really effective cure has been found.

"When you consider that fully a fourth of the population of the Near East are suffering from this disease, you get some conception of the difficulties against which these people are constantly struggling. It is so common to see people with sore eyes, that the Oriental takes it as a matter of course and seldom attempts to do anything about it. In all the centuries during which they have been subject to trachoma and kindred ailments, they have made almost no progress in discovering its causes—beyond that it is extremely contagious—or in achieving a cure. That it may be up to American medical research to accomplish this is quite probable."

Dr. Norton believes that trachoma is spreading not only in the Orient, but in Europe and in our own country. New York City and the foreign quarters of other large centers and also the Southland are filled with it, and it is steadily on the increase in all parts of the land. She intends devoting her time, as soon as she has been entirely cured, to a study of the disease in an effort to discover some more effective methods of treating it than those now employed.

RED CROSS PIONEERING IN RURAL AMERICA.

Peace-Time Activities in the Interest of Health and the Development of the Community Spirit.

THE smaller towns and country communities responded generously to appeals for production work during the war. The output of many a city Chapter was swelled by additions from rural auxiliaries. In such auxiliaries, more often than in the large cities, were found the women who did not have to be taught to knit who were accustomed to sewing. Such women entered with whole-hearted devotion into the Red Cross-war-time activities, and their families shared their services.

During the past two years, the Red Cross has been steadily extending its peace-time activities so that they, too, may reach the country as well as the city. At National Headquarters and in Division offices there are officials who are trying to adapt the program in every possible way to conditions in the smaller places. Out in the field, workers are rendering a greater service, perhaps, in their efforts to meet concrete local conditions.

Because of the expense of some of these advantages and because some of them are possible only through the cooperation of a large group of people, they have been easier to secure in cities than in small towns and in the country. Sparsity of population, poor roads, lack of extra time and extra money make rural improvement a challenge to the most constructive planning, the keenest inventiveness, and the most untiring persistency of leaders among rural people, and to all the organizations which are attempting rural work.

These same difficulties have confronted the Red Cross. It has been comparatively easy to reach and help the service men when they lived in the city. It has been quite another matter to reach all of the men of a county, most of whom were separated from the office by some distance, hence out of touch with, or suspicious of, the possibilities for help. But during the past year much has been done to reach these men. By publicity, by questionnaires, by the organization of local committees responsible for definite local districts and by personal visits to different localities.

Of the Chapters which have extended their Home Service program, six hundred and forty-five have no town as large as eight thousand.

The Red Cross has been bearing its responsibility in the wide-spread effort to extend and equalize the chance at good health. Facts recently compiled by the United States Department of Agriculture, from information supplied by 10,044 farm women in the northern and western states, show that the average farm home is thirteen and nine-tenths miles from the nearest hospital, five and seven-tenths miles from the family doctor, and eleven and nine-tenths miles from the nearest trained nurse.

Records of the health conditions of 4,437 pupils in rural schools, showing any possible defects in their physical condition, are on file. These records were the result of exhaustive examination of the children made in every school of the county. All schools were visited at least once, and many visits were made to most of the schools. To more than two thousand parents notices were written by the nurses, telling of easily corrected defects in their children.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by

THE MEDICAL WOMAN'S JOURNAL

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Subscriptions:

Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.— Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

SCIENCE OF ENDOCRINOLOGY

It should be a great satisfaction, especially to physicians who have practiced their profession a score or more of years, to see the barrage steadily lifting, which almost to the present time was concealed from our view. The intimate relation that exists between the activities of the ductless glands, body growth and bodily disease. The science of endocrinology, although as yet in its infancy, has already proved itself a science, knowledge of which bids fair to make a greater advance in the practice of medicine than did the dawn of the science of bacteriology some forty years ago. Since women seem to be the more common sufferers from endocrine imbalance, medical women should be the first to blot from their records the old diagnosis hysteria neurasthenia and hypochondreuses, and write in its place endocrinasthenia, followed by the name of the gland or glands affected.

We shall need to avail ourselves of the best teaching, for the study is a difficult one. At the same time great discrimination is demanded in weighing the statements being made because of the well-known enthusiasm of explorers in a new field.

The New York Medical Journal of February 5th is an "Endocrinology Number," and contains important teaching no physician can afford to overlook.

"Endocrinology," the Bulletin of the Association for the Study of Internal Secretions, contains reliable data, and should not be absent from the physician's study table.

ELIZA M. MOSHER, M.D.

THE SHEPPARD-TOWNER BILL

The Sheppard-Towner Bill, providing for the "public protection of maternity and infancy," passed the Senate December 16th. In the House it was referred to the Committee on Interstate and Foreign Commerce, which on January 25th reported it out with several amendments. The bill, as it now stands, appropriates $1,480,000 annually for "promoting the care of maternity and infancy in the several States; to provide instruction in the hygiene of maternity and infancy," and for "making such studies, investigations and reports as will further the efficient administration of the act." It authorizes the Children's Bureau to form an advisory committee consisting of the Secretary of Agriculture, the Surgeon-General of the Public Health Service and the Commissioner of Education. The bureau is authorized to expend 5 percent of the appropriation for administration purposes, to pay $10,000 annually to each State for administration expenses, and to apportion the remainder to the States in proportion to their population, provided each State appropriates an amount equal to the amount it receives. In any State having a child welfare or child hygiene division in its State health agency, the State health authorities shall administer the act. The State health authorities shall submit to the Children's Bureau a detailed plan for administration and "for instruction in the hygiene of maternity and infancy through public health centers, consultation centers, and other suitable methods."

Digitized by Google

INDIA AWAKENING

Dr. Matilda Hunt, of London, England, is in this country arranging a series of lectures on India, to interest the women of America in child welfare in India. These lectures will be most comprehensive, giving first a general sketch of this interesting country, its people, natural productions, government, etc.; Indian women at home and abroad; domestic life in India; education; health conditions—terrible infant and mother mortality: the new mood of India, and the social service that America can render to India, and especially the child and mother welfare work in Britain from 1910 to 1920.

Dr. Hunt is endeavoring through these lectures to American women to establish a chain of health centers across the country for the promotion of child welfare in India, but as she rather pathetically says, "One woman's resources can not compass such an undertaking," and she will be most grateful for the co-operation of American medical women in this work. To again use Dr. Hunt's own words, "it would be a particularly gracious thing if the medical women of America came to the relief of Indian babyhood and womanhood."

She wants American women to visualize the situation of over 300,000,000, where one in three of infants die before they are twelve months old, and usually before one month of life is completed, entirely through prematurity and exhaustion. Of course, caste lies at the root of much of this, when girls are mothers at 11 and 12 years of age, the reason for infantile debility is not far to seek. A powerful national consciousness has begun to work, chiefly along political lines, but to some small extent for social welfare, and it is said that this matter arrests and absorbs the minds of the best Indian men, when it is presented to them.

Dr. Matilda Hunt is a Fellow of the Royal Society of Medicine, London; Member of the Medical Women's Federation, Great Britain; Member of the British Medical Association; Member of the Executive Committee of Infant and Maternity Welfare Centers of Great Britain; and she has been Lecturer on English Literature at the Sind College, Karachi, India; Headmistress of Alexandra School, Bombay, India; Lecturer for ten years to the London County Council on Health, a post which still continues. Any one wishing to communicate with Dr. Hunt in regard to the above work, or who may wish to make engagements with her for these lectures, should address her at 542 West 113th Street, New York City.

NOTES AND COMMENTS

Dr. Kristine Bonnevie, of Norway, has been appointed as alternate to the Norwegian delegates to the League of Nations Assembly. In 1906 Dr. Bonnevie took her degree as Doctor of Philosophy, and has in later years been occupied with the study of the subject of heredity, and is much esteemed in her profession. She has been Norway's official representative at several international assemblies.

Seventy percent of the children of Vienna under 6 years of age are not normal, according to the statement of Dr. Josef Poener, one of the chief medical authorities of Austria. "Deficiencies predominate among the girls, the future mothers of the nation." Ninety percent of the children under 12 show signs of rickets. There are 115,000 tuberculous children in Vienna, according to studies made by the Red Cross. Of 54,000 children recently examined in a State clinic, but one in twelve proved to be in normal health.

The entire sum needed to save the lives of a half million starving children in the war-devastated areas of Europe is less than the cost of one modern battleship. About one-third of the $33,000,000 asked for has already been contributed.

The Sheppard-Towner Maternity Bill was reported favorably by the House Committee on January 25th.

Members of the Order of Shriners throughout the United States are to be taxed $2 each for the building and equipment of a children's hospital, to cost $1,000,000. The location of the hospital is not yet agreed upon.

Milk for Vienna Children.— In April, 1920, the Friends' Relief Mission helped secure about 300 cows from Switzerland, which were placed on the various farms belonging to a State Agricultural Society, and provided milk during the summer for the children connected with the hospitals and welfare clinics of the city. In September the Mission increased the number of cows by 265 more, brought in from Holland. The milk will all be sent into Vienna during the winter, for the use of undernourished children certified by a doctor to be suffering from want of food.

Digitized by Google

Poland—a provision for the care of children by the State is contained in an article of the new Polish constitution, which reads as follows: "Each child deprived of parental care or who is neglected morally or materially, has the right to secure care and aid from the State. The sphere of the State's duties in this capacity will be defined separately by laws which will provide also for the protection of mothers who may require aid before the birth of the child and for the protection of the child in infancy."

The appeal of Judge Kathryn Sellers of the District Juvenile Court in Washington, D. C., for the co-operation of the churches has met with a response, and many churches have formed special committees to assist in the work. The committees are especially useful in follow-up work. A number of the churches have representatives at the sessions of the court or have made arrangements to keep in constant touch with it.

A Red Cross clinic which cares for babies of twelve different nationalities is now held each week in St. Louis in a building formerly occupied by "The Watch on the Rhine Saloon." Two other similar clinics are maintained by the Red Cross in the city, and nine more are supported by the municipality.

Germany—General physical training is receiving particular emphasis in Germany as a means of offsetting the injurious effects of the war, since military training is forbidden by the Versailles Treaty. An extensive agitation is now going on in favor of courses in physical education in the high schools and universities. The importance of teaching hygiene to the masses of the people is being recognized in Germany. Committees have been formed in Prussia, Saxony and Bavaria to promote such work. In Dresden preparations have been completed for the formation of a national agency for the whole of Germany.

A campaign for a State bureau of child hygiene is being waged by the Maryland Federation of Women's Clubs. The movement has the backing of the State League of Women Voters.

The diseases and conditions connected with child-bearing have shown an unsatisfactory tendency during the first nine months of 1920, according to the report of the industrial department of the Metropolitan Life Insurance Company. Among both white and colored women policyholders there has been a significant increase in the death rate. In a group of eight large cities the mortality rate from puerperal diseases per 1,000 was 6.3 during the first six months of 1920, as compared with 5.5 in 1919, an increase of 15 percent. "The control of diseases and conditions incidental to child-bearing is one of the immediately pressing problems of American public health administration."

DIED

Idris Helen Briggs Gregory, Ontario, Cal.; University of Michigan, Ann Arbor, 1876; aged 66; died in Los Angeles, January 30th.

Mary A. Quincy, M.D., Ashland, Neb., died at her home December 7, 1920, of influenza, aged 63 years. Dr. Quincy was a graduate from the University of Nebraska in 1896, and served as secretary of the Saunders County Medical Society since its organization in 1914, with the exception of one year when she was elected president. Dr. Quincy had been a member of the Medical Society of the Missouri Valley since 1903, and was faithful in attending its meetings.

Society Election.—At the annual meeting of the New England Women's Medical Society, January 20th, the following officers were elected for the ensuing year: president, Dr. Florence Duckering; vice-president, Dr. Maud Carvill; secretary, Dr. Alice H. Bigelow, and treasurer, Dr. Margaret Kleinert, all of Boston.

Visit of French Scientist.—Mme. Marie Curie, the discoverer of radium, will visit the United States in May for an extended tour, as the guest of Mrs. William Brown Meloney, editor of the "Delineator." A reception committee of prominent physicians who are engaged especially in radium work has been appointed under the chairmanship of Dr. Francis C. Wood, New York.

Personal.—Dr. Mary Logan Cowan, a member of the Department of Pathology, University of Toronto, has been awarded the Beit Memorial Scholarship for research in medicine. She will shortly take up work in the Lister Institute of Preventive Medicine.

Response of Undernourished Children

The gratifying response most anemic, undernourished children make to the continued administration of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) describes one of this agent's widest fields of usefulness. Under its use these little patients show an improvement in appetite, take on weight and manifest a greater aptitude for school duties.

A marked advantage of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) lies in its palatability—a

Digitized by Google

factor of importance in choosing a therapeutic agent for administration to children. It contains all the desirable qualities of the plain oil, and is indicated in every case in which plain oil would be of service. Its palatability makes it acceptable to children and enables it to be continued over long periods of time.

A Mild Winter with Sudden Turns to Extreme Cold

brings with it a rapid and great increase in the number of respiratory troubles the physician has to treat, from the ordinary "cold" to the more deep-seated catarrhs, bronchitis, pleurisy and pneumonia.

Of considerable interest is, therefore, the timely announcement, just made by Schering & Glatz, Inc., that they will in future supply, under the designations "Creosote Carbonate, S. & G.," and "Guaiacol Carbonate, S. & G.," U. S. A.-made products of the same high standard which distinguished the imported products "Creosotal" and "Duotal," of which they were the original and sole distributors for many years.

Both products are obtainable through the drug trade, or, if physicians are not promptly and satisfactorily served, direct from Schering & Glatz, Inc., 150 Maiden Lane, New York.

Adrenalin in Diagnosis

The new science of endocrinology has developed so rapidly that, in order to remain in the vanguard of the march of progress, the physician must needs keep himself informed on every phase of glandular therapy. In harmony with this idea we have directed the attention of our readers, on several occasions, to the series of instructive essays on Adrenalin that have been appearing in the advertising section of this journal.

In the current issue we present a brief discussion of the use of Adrenalin as a diagnostic agent in hyperthyroidism and pancreatic diabetes, also as a test of suprarenal function. The technic of these tests is simplicity itself, and there would appear to be no reason why any practitioner should not avail himself of them in certain obscure cases in which a differential diagnosis by the usual means may be difficult or even baffling.

The preparation employed in making the tests is the original 1:1000 Adrenalin chloride solution of Parke, Davis & Co., upon the use of which for twenty years the literature of suprarenal therapy has been built up.

The Tuberculous Tendency.

Either a person is tubercular or he is not. But he may be non-tubercular and yet have a tuberculous tendency. By this is meant that a person is run-down, underweight, anemic, and of low resistance, proving a ready victim to severe weather or easily susceptible to infectious processes. To change this condition and to reduce the tendency toward tuberculosis, the essential purpose is to increase tissue resistance.

A person's susceptibility to infectious processes and especially to tuberculosis bears a direct relationship to the index of his tissue resistance.

Cord. Ext. Ol. Morrhuæ Comp. (Hagee), by reason of its power to increase bodily strength and tissue resistance serves a most excellent purpose in the case of those persons with the tuberculous tendency. It increases weight, adds bodily strength and helps weakened individuals to withstand severe weather strains, and therefore reduces susceptibility to the ordinary infections of the respiratory tract.

Red Cross activities in the Near East

Digitized by Google

BOSTON MEDICAL
SEP 23 1922
LIBRARY

HEMORRHOIDS FISSURE FISTULA

IN practically every case of hemorrhoids, fissure, fistula, proctitis, prostatitis, etc., there is a history of constipation. One primary indication for treatment is to maintain free, easy bowel movements without straining.

Nujol is the ideal agent for such purpose. It promotes peristalsis by softening, moistening and lubricating the feces. It is an emollient that protects and soothes irritated and inflamed mucus.

Nujol brings about and maintains regular, easy bowel movements. Can be given for any length of time in any dose required.

Nujol

REG. U.S. PAT. OFF.

Nujol Laboratories, Standard Oil Co. (New Jersey), Room 760, 44 Beaver Street, New York City.

Please send me booklet "The Treatment of Hemorrhoids", and sample of Nujol.

Name .....

Address .....

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 3

March, 1921

$3 per year in advance
Single Copies, 25 cents

THE ADRENALIN HYPERTENSION OF THE CLIMACTERIC

By MARY E. LAPHAM, M.D.,
Highlands, N. C.

MARANON says that just as the pineal and thymus glands should normally lose most of their functional force at puberty, so the reproductive system, and more especially the anterior pituitary and the sex glands, are predestined, at about the decade of from forty to fifty, to lessen in their functional activities and the sex glands in women to practically stop functioning. When this reduction of re productive activities begins, there is a lessened secretion of substances which tend to keep down the blood pressure, to promote vaso-dilatation and stimulate the vagus. The pituitary and the sex glands are closely concerned in the secretion of these substances, so that one of the first and most constant of the consequences following upon their functional insufficiency is a rise of blood pressure and undue influence of adrenalin, because the vagus is not able to balance its action. When the secretion of stimuli by the pituitary, thyroid and sex glands begins to lessen and the vagus begins to fail, the necessity for a readjustment arises, and it is this necessity and the way it is met that constitutes what Maranon considers as the "critical age," and which we often call the "climacteric."

In women this period of readjustment is more complicated than in men, because the cessation of stimuli produced by the sex glands is much more complete in women than in men, and because the lack of menstruation disturbs certain processes of elimination associated with that function—notably the metabolism of calcium. The reproductive mechanism is more inextricably interwoven with the somatic metabolism of women than with men, because they develop the products of conception. The man has to provide only for his own functions; the woman has to provide for an outsider, living within her body, and therefore has to have two sets of metabolic activities, one for her own body and one for serving and transmitting the germ plasm to the next generation. From the moment that two more chromosomes are given, the dividing germ cells and the sex of the female is determined; the embryo develops along two lines of metabolism, one for itself and one for the reproductive functions. It is the function of the ovaries to prepare the ova for fertilization and to expel them when ready; but, for this task, the whole reproductive system is needed. The follicles cannot develop properly nor mature the ova without stimuli from the thyroid, pituitary and the cortex of the suprarenals. This reproductive system provides for the nourishment, the development and the expulsion of the fetus and lactation. Suitable conditions must be provided for the embryo, for the instantaneous offering of all necessary materials for its constructive metabolism. At about the time the ovum is matured and ready for its expulsion, premenstrual waves of congestion sweep through the body and stimulate its metabolism; in the lacunæ beneath the endometrium these constructive materials are stored. The endometrium is changed so as to become an organ of transportation to carry the accumulated supplies to the embryo and bring back the waste products. This reproductive system is the basic fact of woman's existence. When it is ready, puberty is ushered in. Thenceforth, periodically, the phenomena of puberty are repeated. If the ovum is not fertilized, the decidual layer of the endometrium is cast off, the accumulated supplies are discharged and menstruation announces the failure to conceive.

When the reproductive follicular functions of the ovaries begin to fail, the pituitary is apt to fail also, and then the thyroid and the suprarenal cortex may undertake the task of compensation. If there is a stable vagus system and a stable thyroid, the period of readjustment will be much more stable than if there is a state of transmitted, constitutional inferiority of the autonomic nervous system and constitutional weakness of the vagus. In some cases the thyroid remains stable; in others, it may at first assume an overactivity, which is followed by hypothyroidism. If hypothyroidism has previously existed, it may be markedly increased at this period;

Digitized by Google

a pre-existing tendency to hyperthyroidism is very apt to be exaggerated at this time. Both hypo and hyper-thyroidism may be relieved or prevented by supplying thyroid preparations, cautiously and in small doses, so as to lessen the demands made upon the thyroid by the failing pituitary and sex glands. The most constant consequence of the failure of this reproductive system is the increased influence of adrenalin, which, as a rule, tends to stimulate the suprarenals as a whole, so that the cortex remains functionally efficient or even, in some cases, becomes pathologically overactive and the dangers of hypercholesterinemia result. In cases of vagotonia or of constitutional lack of sympathetic force, the undue influence of adrenalin does not occur, but an increased functional insufficiency develops, which is shown by the appearance of "liver spots" and the syndrome of suprarenal insufficiency. As a rule, the most constant and most upsetting feature which has to be readjusted at the climacteric is the undue influence of adrenalin and hyperactivity of the suprarenals consequent upon the loss of vagus influence and the stimuli coming from the reproductive system. This tendency to adrenalin predominance would be all the more characteristic if there was the overweight of adrenalin production in the human female that there is in the female white rat. The suprarenals of the young adult female rat compared with those of the male, according to Herring, are 40 percent heavier, contain twice as much adrenalin and nearly twice as high a percentage per 100 grams body weight. While these proportions may not exist in human beings, it is possible that the phylogenetic tendencies may still influence the process of reproduction, in which case there would be this added reason for adrenalin predominance in the female, and because the thyroid lessens the adrenalin content of the suprarenals an increased need of this influence might explain the tendency to hyperthyroidism, which is sometimes so characteristic of the climacteric.

The undue influence of adrenalin may be experienced by taking sufficiently large doses for a sufficient length of time. This is a good way to learn and to realize that the condition of the vagus influences the effects of adrenalin during the climacteric. If the autonomic nervous system is stable, the influence of adrenalin will be chiefly directed towards an increased action of the sympathetic, exerted chiefly upon the vasomotor system, with contraction of the smaller blood vessels and the capillaries. As this vaso-constriction increases, there is eventually a sense of pressure in the head and an unwillingness for mental effort; a strong desire to keep quiet or even to lie down; eventually there is a tendency to spastic contraction of the radial artery with consequent weakening of the pulse and lowering of the pulse wave; thoracic oppression; difficulty in breathing, especially felt when physical efforts are made; an annoying, persistent desire to urinate and polyuria, more especially at night; with cold feet and hands. If this is carried still further, the undesirable effects of adrenalin are shown by waves of pressure extending towards the periphery in all directions, causing pressure in the rectum with tenesmus and frequent attempts at defecation. In the head, as described by Biedl, "The intracranial pressure may be sufficiently high to stimulate the vagus and cause a slowing of the pulse, shallow inspiration, prolonged expiration, long expiratory pauses, with deep sighing and spasmodic attempts at swallowing. There may also be muscular tremors, jerkings, or even convulsions." Attacks of bradycardia with cardiac distress are therefore associated with increased activity of the vagus, secondary to increased activity of adrenalin. The vagus excitation is a symptom relieved by atropin, but the real treatment consists in the lessening of adrenalin force by furnishing the lacking substances permitting the undue influence of adrenalin, i. e., those of the sex glands, thyroid and pituitary.

When the autonomic nervous system is not stable, when there is a condition of transmitted sympathetic predominance or a constitutional inferiority of the vagus system, then the foundation of a stable blood pressure is insecure, and vasomotor instability from vagus insufficiency results and greatly increases the difficulties of proper readjustment when the sex glands and pituitary begin to fail the vagus system, and the rising influence of adrenalin has to be antagonized. The basic degree of blood pressure seems to be fundamentally determined by the vasomotor control of the splanchnic system. When the action of the sympathetic and vagus upon this system is balanced, the blood pressure is stable and furnishes that even pressure upon which the perpetually rhythmic waves of rising and falling pressure are based. The results of loss of this balanced action and consequent instability of the general blood pressure, due to in-

Digitized by Google

stability of the splanchnic circulation, have been well shown by Zondek, who says: "In the climacteric, the vasomotor system is exceedingly unstable and the vasomotor center is in a state of constant excitation or irritability, caused by disturbances in the production of the internal secretions of the ovaries. This instability of the vasomotor center is manifested by waves of vasomotor constriction and dilation, which cause a pathological distribution of the blood. Theses waves are formed by primary constriction of the splanchnic vessels, which drives the blood out into the peripheral vessels, which dilate to receive them. These constricting impulses from the vasomotor centers follow each other in rapid succession so that the individual vasomotor effects are not fully developed. As suddenly and as spasmodically as these waves of constriction were initiated, they cease or are followed by waves of splanchnic dilation and peripheral constriction, driving the blood back from the periphery into the splanchnic bed, thus causing in their ebb and flow alternate flushing and pallor, sensations of heat and of cold, outbursts of sweating and a clammy, moist skin or dry, cold extremities, mottling, marbling, acrocyanosis or grey lividity. These waves are characterized by their paroxysmal nature, by a disturbance in the rhythm of respiratoin and by a pathological distribution of blood, causing dis tressing subjective sensations, syncope, palpitation and states of anxiety and fear. When intellectual efforts are attempted, the vasomotor center may react so inefficiently that the blood supply so necessary for mental and psychical functions is not properly regulated, but resembles the conditions seen in exhaustion or diseases of the nervous system. This cerebral condition, caused by a pathological distribution of blood to the nerve centers, may be associated with the neuroses and psychoses of the climacteric just as it is associated with the same etiological factor, vagus asthenia from insufficiency of the reproductive system. The blood supply for physical efforts is more normal than for cerebral, while the heat center frequently functions abnormally and maintains a paradoxical reaction to cold."

Pendé says that adrenalin has a tendency to raise the temperature, which tendency is increased when there is a lack of parathyroid, pancreas and sex gland secretions —in other words, when there is a lack of stimuli maintaining the functional efficiency of the vagus. Clough describes a condition of hypersensitiveness to adrenalin in cases of hypertension, which are characterized by an exaggerated response to doses not large enough to cause any reaction in normal subjects. These reactions began with a feeling of excitement, followed by apprehension and fear. Then came successively apparently contrary manifestations, such as pallor and flushing, hot flashes and sensations of cold or even a violent chill, muscular weakness and tremors or jerking almost amounting to convulsions, tachycardia and syncope, precordial pain, anginoid in type, associated with great anxiety and marked subjective discomfort, difficult for the patient to describe. Clough thinks that this increased sensitiveness to adrenalin is caused by an abnormal reactivity of the cardio-vascular system to stimuli of all kinds, but he offers no explanation as to the reason for this excitability. He is confident that, although it only occurs in cases of hypertension, there is no increase of adrenalin in the blood and no hyperactivity of the sympathetic system.

Aschner says that, when the sex glands begin to fail in the production of their secretions, the first consequence is seen in the inability of the vagus to control the tendency of the adrenal system towards increasing the blood pressure. Hypertension, adrenalin predominance and vagus inferiority are the first abnormal consequences caused by the loss of stimuli from the reproductive system. Aschner also says that the hypertension so typical of the climacteric may be induced in cases of ovarian insufficiency and vagasthenia by the persistent use of adrenalin. The adrenalin hypertension of the climacteric is characterized by its instability. It goes and comes; varies from day to day and from hour to hour, in accordance with the activity of the superarenals. It is not steady like the hypertension of cardiac, renal or arterio-sclerotic origin, because it is based upon a very unstable, irritable vasomotor system, which is often equally characteristic of castration.

Christofoletti says that in the climacteric there is the same increased reaction to adrenalin that there is after castration. Adler compares the lack of vagus influence in the climacteric with that following castration, and shows that there is the same delay in the coagulation of blood, the same lack of eosinophils and marked inability to respond to vagus stimuli. During the climacteric there is the same tendency to exaggerated reactions to small doses of adrenalin that is seen after castration, such

Digitized by Google

as alternations of flushing and pallor, sensations of heat and cold, sweating, chilling, severe trembling, tachycardia, rise of temperature, polyuria, glycosuria and other phenomena characteristic of the climacteric. Schickele describes the hypertension of the climacteric as a special type caused by the lack of vaso-dilating and hypotensive stimuli from the ovaries. This hypertension may reach 200 mm. mercury and, according to Maranon, may fall later on, as adaptation to this loss proceeds, or may persist permanently if the adaptation is not a success.

Maranon advises the use of ovarian preparations for the neuralgias and sciaticas of the climacteric which he thinks are caused by vascular spasms from too much adrenalin influence. Jaschke emphasises the importance of recognizing the influence of too much adrenalin upon the heart and of classifying the cardiac disorders upon a basis of abnormal stimuli from the endocrines or the autonomous nervous system. He describes the attacks of tachycardia, sharp pains in the cardiac region, precordial anguish, with or without dyspnoea, as typical consequences of the climacteric conditions. Herz is certain that pseudo-angina pectoris may be entirely due to the climacteric. Aschner agrees with Herz and says that, in some cases, this pseudo-angina pectoris of the climacteric can only be differentiated from real angina pectoris by its milder course and association with the climacteric. More than this, when the excessive stimuli from adrenalin persistently causes functional disturbances of the heart's action, structural changes in the myocardium may eventually result and cause fatty degeneration of the heart muscle, disturbances in the transmission of stimuli from the auricle to the ventricle and arterio-sclerosis of the cardiac vessels. It has been shown that the anginoid climacteric conditions of the heart may represent transitional stages, which eventually progress into genuine anginas caused by myocarditic or arterio-sclerotic changes. Attacks of paroxysmal tachycardia, with its distressing sensation of suffocation, and the pseudo-anginas of the climacteric may represent, in cases of constitutionally unstable autonomous nervous systems, a tendency to cardiac diseases caused by the over-influence of adrenalin and lack of vagus force.

Mouriquand says that there are two series of metabolic disorders which may originate because of the climacteric. Both series are characterized by obesity, but otherwise they are antagonistic in their symptoms. In the first series the blood pressure is low, the obesity is of the feminine type, the fat being chiefly distributed over the breasts and hips. There is apt to be neurasthenia, myasthenia, subnormal temperature and high carbohydrate tolerance. The pituitary, thyroid and suprarenals are lacking in efficiency, and the basic factor of the condition seems to be a lowered tone or functional inefficiency of the sympathetic portion of the autonomous nervous system, with insufficient production of adrenalin and predominance of the vagus autonomic system. This vagotonic diathesis is frequently associated with depressive states, which may precede or initiate neuroses and psychoses, with vague and varying ideas of persecution and other suggestions of paranoia.

The second series of metabolic disorders associated with lack of stimuli from the reproductive system may also begin with obesity, but in this series it is possible that the obesity is associated with hyperactivity of the cortex of the suprarenals, since many characteristics of these disorders of metabolism are also identified with hyperactivity of the cortex. The fundamental manifestation and the basic factor of the future symptoms seems to be the hypertension so characteristic of the age. This increased blood pressure is intimately associated with decreased vagus functions and increased irritability of the chromaffin or adrenal system, so that, with the hypertension, there is a low tolerance for sugar. For some reason or other, this has been called the arthritic series, although arthritism is the terminal rather than the primary condition. Overstimulation of the sympathetic system by hyperactivity of the suprarenals starts metabolic faults which may lead to obesity, adiposity, lipodystrophies, diabetes, gout, biliary litharsis, cholelithiasis, psoriasis, skin disorders of various types, chronic rhumatism, renal and vascular diseases. The irritability of the sympathetic system is shown in the association of diabetes with acromegaly, with hyperthyroidism, or signs of malignant dysthyroidism, by the hypersensitiveness to adrenalin, so characteristic of hypersuprarenalism, and by hypertrichosis. It is thought by many authorities that this increased activity of the suprarenals is the first consequence of the lack of stimuli from the reproductive system, and that this preponderance swings metabolism off on to a hyperglycemic basis and often on to a hypercholesterinemic strain. These glycosuric

Digitized by Google

cases may or may not become diabetics, but, in the earlier, preceding glycosuric stages, they are usually corpulent, and this characteristic is so markedly transmitted to their children that even in utero they may cause dystocia. At first these children are apt to show a high tolerance for sugar, but even when they are not obese during infancy they are apt to become so towards puberty and to lose this sugar tolerance to a marked degree. In adults, this condition of obesity with low sugar tolerance does not indicate a lack of cellular metabolism, for the basal rate is decidedly higher than normal, and the proteids and fats are burned most vigorously. It is a condition of refusal or inability of the metaboilc forces to use sugar, and the question is, why?

The biliary lithiasis with its attacks of hapatic congestion and jaundice and tendency towards the formation of gall stones is based upon an increased production of crolesterin, which is a prominent function of the suprarenal cortex. Is this overproduction of cholesterin and its association with atheroma and arteriosclerosis also a secondary consequence of sex gland failure, and is it analogous to the glycosuric faults? Is the obesity of the hyperactivity of the suprarenal cortex partly due to the retention of water, which is caused by an excess of lipoids?

The faulty metabolism of calcium is shown by gout and chronic rheumatism. Excretion of calcium is a function of the reproductive metabolism. The retention of calcium is characteristic of the time when stimuli from the reproductive system begin to fail. Just as an excessive excretion of calcium is seen in excessive functioning of the ovaries, so may the retention of calcium represent lessened activities of the sex glands, and gout and rheumatism and neuralgias and sciatica follow. Is there not also a loss of pituitary force? When the pituitary is hyperactive, as in acromegaly, the excretion of urates is increased; and when there is pituitary insufficiency, as in adiposo-genitalis, the retention of urates is increased.

Arthritism, gout, chronic rheumatism, skin disorders, are all logical consequences of the lessened activities of reproductive forces, combined with primary or secondary changes in the endocrines and the autonomous nervous system and with toxemias, both of an endoenous and exogenous nature, so that all attempts at relieving these conditions may easily fail unless the etiological factors are recognized and corrected. The organotherapeutic indications may not suffice, and we may have to look farther back and determine the cause of the faulty functioning of a gland. The chronic rheumatism of hypothyroidism is very intractable, and constitutes a most deplorable condition, which may be made to yield by treating the source of toxins and giving ovarian and thyroid, with sometimes the addition of orchitic and prostatic preparations. Oddly enough, hyperthyroidism has its rheumatism also, which is extremely rebellious to treatment and may lead to deformities. When this hyperthyroidism is of a compensatory nature and secondary to loss of sex gland stimuli, the use of sex gland substance may be very beneficial.

Munk describes the relation of the hypertension of the climacteric to the overproduction of cholesterin: "During its course capillary sclerosis is very apt to occur, and with these capillary changes there may be nervous manifestations, which find their explanation at autopsies in sclerosis of the cerebral capillaries. This condition of hypercholesterinemia is frequently associated with various cardiac disturbances, with kidney diseases and with diabetes from sclerosis of the capillaries of the pancreas. All these organic consequences are secondary manifestations of the original cause underlying the hypertension and the overproduction of cholesterin and adrenalin, with increased excitability of the sympathetic branch of the autonomous nervous system, which is the loss of stimuli from the reproductive system. In the diseases dependent upon arteriosclerotic changes, there is always an increased amount of cholesterin in the suprarenals, in the blood and in the atheromatous patches on the walls of the damaged blood vessels. The association of hypertension with hyperglycemia and hypercholesterinemia suggests that, just as in hyperglycemia it is known that the mechanism of the control of sugars is at fault, so in these cases of hypercholesterinemia the lipoid mechanism may be at fault and constitute the fundamental, pathological factor. This fault would then take its place as a clinical entity, just as the disturbances in sugar metabolism do." The suprarenal cortex and the posterior lobe of the pituitary would seem to be part of this mechanism, and therefore should not be used in the organotherapeutic treatment of the hypertension of the climacteric when there are any indications of an overproduction of cholesterin.

Adams says: "As ophthalmic surgeons, we see an enormous number of patients

Digitized by Google

between the ages of 40 and 45, the common age of hypertension, for the purpose of ordering presbyopic glasses. Thus a heavy responsibility is ours if, in the ordinary routine examination of presbyopic subjects, we miss a case of hypertension and are content to order a pair of reading spectacles, without going further into the case, when the symptoms are suspicious and the eyes insufficient to account for them. The next point to consider is the symptoms that such patients complain of. Williamson gives the following, which I have arranged in two groups:

(1) Heaviness, or fulness of the head, drowsiness, insomina and fatigue, especially in the morning. Inability to concentrate, despondency, giddiness, noises in the ears, migraine, neuralgia and nervousness.

(2) Local syncope of the extremities, rheumatic pains or cramps in the limbs, tendency to hemorrhage, hemoptysis or epistaxis, dyspnoea on exertion and intermittent polyuria.

Headaches on waking in the morning, or that even wake them up in the night, but pass off after a cup of tea and getting up, are, I believe, never caused by the eyes, and always raise a suspicion of high blood pressure in my mind. At the same time, it is not an unusual complaint of women at the menopause. Pain at the back of the neck again may be caused by errors of muscle balance, particularly exophoria; but this is more so in young subjects, and, when occurring for the first time in middle age, is, I believe, a symptom suggestive of raised pressure. In patients with migraine, who have their first attacks somewhere about the age of 50, with tendency to frequent repetition, I believe the trouble often lies in heightened blood pressure. Those cases of giddiness which come on after change of position, such as getting up after sitting in an easy chair for sometime or getting out of bed in the morning, seem obviously due to circulatory disturbance; and yet I have had many people sent to me to have their eyes tested for glasses on account of giddiness. The ophthalmoscope is, in many ways, a more accurate instrument than the manometer, and certainly will give more information as to the exact condition of the smaller blood vessels." Analyzing these symptoms, we find that the drowsiness, inability to concentrate, despondency, nervousness, dizziness, noises in the ears, sense of pressure back of the eyes, relaxed nasal circulation, and intermittent polyuria are all well known symptoms of thyroid and pituitary insufficiency; while the migraine, neuralgias, rheumatic pains or cramps in the limbs, tendencies to hemorrhagias, to hemoptysis, or epistaxis and to dyspnoea on exertion are all associated with lack of vaso-dilating and hypotensive stimuli from the sex glands with secondary predominance of adrenalin and consequent hypertension. When the diagnosis of hypertension is made, and the question is asked as to how it may best be lowered or kept from going higher, the treatment proposed usually seeks to correct some fault in the way of living, which is regarded as responsible for the high blood pressure, or else tries to avoid anything apt to favor arterio-sclerosis. Often enough these two coincide. Often enough it is "the man who works hard, drinks hard, smokes hard, particularly the keen business man with many responsibilities," that develops a high blood pressure and arteriosclerotic tendencies; but there is also a class of cases quite distinct from these. Many a woman, sheltered, protected, temperate in all her habits, finds herself facing the hypertension of the climacteric with no discoverable reason for its existence. The hypertension is often undiscovered. The ears, the nose, the eyes, the gastro-intestinal tract, the cardio-vascular, the renal, the genito-urinary distress—all the organic manifestations—are given careful symptomatic attention; but the vasomotor instability is too little understood even to be symptomatically treated, and so many a woman drifts into gout or arthritis deformans, or suffers from flatulent indigestion or cardiac distress, or finally becomes a victim to some terminal metabolic disorder, such as diabetes, or cholesterinemia, or nephritis, or myocarditis, or arterio-sclerosis, just because no one knew when the switch was turned and normal metabolism was converted into a source of danger. Well for us all when we shall see in that rising column of mercury the warning signal of danger ahead; when we shall be able to associate with it the rising power of the adrenal in mechanism and the fall of the reproductive; for this will teach us the value of trying to correct in time the deviations from the normal which so often occur at this period. It is not yet fully apparent what may be done by organotherapeutic efforts, but since the disorders and the diatheses of the climacteric are all of endocrine origin, the use of substitution products seems advisable. We know

Digitized by Google

that ovarian preparations reduce the hypertension of the climacteric, and we know that their efficiency is often increased by the addition of pituitary and thyroid, so a pluriglandular preparation like hormotone without post-pituitary may be used to advantage.

Summary.

(1) When the production of vaso-dilating and hypotensive substances by the reproductive system becomes inadequate, there is a tendency for adrenalin to become unduly influential.

(2) Adrenalin predominance, in cases of unstable autonomous nervous systems, may cause instability of the vasomotor and heat centers, as shown by the vasomotor phenomena of the climacteric.

(3) The hypertension of the climacteric may be associated with cardio-vascular, cardio-renal and pancreatic strain, leading to the formation of cardiac, renal and pancreatic diseases.

(4) The irritability of the sympathetic nervous system may cause glycosuria, hyperglycemia and the diabetic diathesis.

(5) The stimulating effect of adrenalin upon the suprarenals as a whole may cause an over-production of cholesterin and an increase of cholesterin in the blood, which is etiologically closely associated with the biliary lithiasis, cholelithiasis, gall stones, etc., as well as with the xanthomatous manifestations.

(6) Since this undue influence of adrenalin originates just at the time when the reproductive system fails in its production of vaso-dilating and hypotensive stimuli, the administration of these stimuli is logically indicated to counteract the influence of adrenalin.

(7) The desiccated substance of the entire sex glands, the pituitary and thyroid represents these stimuli; if there are no indications of increased cholesterin production, the suprarenal cortex may be used with great advantage.

(8) If there are indications of hyperthyroidism, the use of thyroid substance should be carefully considered and not given unless the secondary compensatory nature of the hyperthyroidism can be traced.

(9) Large doses of the sex glands and small doses of the thyroid and pituitary should be used.

REFERENCES:

Maranon, L'Edad Critica.

P. T. Herring, "The Adrenalin Content of the Suprarenals of the White Rat," Quarterly Journal of Exp. Phys., Vol. xii, No. 2.

Biedl, "Die Innere Sekretion," 1913.

Zondek, "The Vasomotor Instability of the Climacteric," Zeitschrift f. Genurtshülfe und Gynäkologie, June 22, 1920.

Clough, Johns Hopkins Hospital Bulletin, Vol. 31, p. 266.

Aschner, Die Blutdrüsenerkrankungen des Weibes, 1918.

Christofoletti, Gyn. Rundschau, 1911.

Adler, Arch. f. Gyn., Bd. 95.

Herz, Die Sexuelle Psychogene Herzneurose, 1909.

Schieckele, Zur Deutung Selterner Hypertonien, Med. Klinik, 1912.

Mouriquand, "The Disordered Metabolism of the Menopause," Paris Médical, May 1, 1920.

Munk, Hypertension and Cardiac Hypertrophy, regarded as a disease entity, Berlin Med. Gesellschaft, October 22, 1919.

Adams, "Hypertension, the Ophthalmologist and the Menopause," British J. Ophthalmology, July, 1920.

WOMEN IN THE LEAD INDUSTRIES*

By ALICE HAMILTON, A.M., M.D.

Special Investigator, United States Bureau of Labor Statistics, and Assistant Professor of Industrial Medicine, Harvard Medical School

[Concluded from last month]

Painting Trade

It is so very improbable that women will ever engage in house painting or ship painting that these two branches of the painting industry need not be dwelt on. But there seems no reason why, so far as their strength is concerned, they should not be employed in much of the painting that is carried on in factories, especially in painting furniture, picture frames, moldings, etc. They may also undertake the painting of wheels for wagons and carriages. This sort of painting has, up to now, been done very largely by unorganized and more or less unskilled painters, and the substitution of machinery for hand work has increased very greatly in recent years. Much of the painting of carriages, wagons, automobiles and agricultural implements is done by mechanical dipping into tanks of paint, and painting by hand is sometimes limited to the decorations on the last coat. A great deal of leadless paint also is used for these articles. The painting of furniture, picture frames, moldings, and other small objects is of very little importance from our point of view, because leadless paints are used almost entirely.

The danger in the branches of painting in which women are likely to be employed lies in the process of sandpapering dry

*Bulletin U. S. Department of Labor.

Digitized by Google

paint which contains lead. Even when the actual painting is done by machinery, the paint, after drying, is often rubbed with sandpaper to prepare it for the next coat. This is especially true in painting wheels. Carriage and wagon wheels are sometimes given several coats of paint rich in white lead or red lead, and each coat except the last is rubbed with sandpaper and the dust is brushed off with a soft brush. The body of the vehicle, though painted chiefly with leadless paint, may be given first a coat of white lead paint and white lead putty to fill in the inequalities of the wood, and these are rubbed with sandpaper.

Not only white lead, but red lead and a lead oxide known as orange mineral, and yellow lead chromate, and the mixture of chromate and Prussian blue, called chrome green, are used in paints. Finally, lead sulphate, sometimes called sublimed white lead, has come into increasing use of late years as a substitute for white lead. The most soluble, and consequently the most poisonous of these forms of lead, is white lead. Next come the oxides, and work with oxide paint may be more dangerous than with white lead paint, because red lead paint does not keep well and is usually mixed fresh each day by the painter. The chromates and lead sulphate are less soluble, but quite poisonous enough to require all possible precautions in handling.

The most important of these precautions is the avoidance of dust from dry sandpapering. In Germany, France, Belgium, and Austria the law forbids dry rubbing of lead paint. If it is to be sandpapered, the sandpaper must first be moistened in some mineral oil to prevent the dust; but rubbing with pumice stone and water is much more usual in those countries, except for the first coats of paint, where water can not be used, for it would raise the grain of the wood and cause metal to rust. Other sources of dust in connection with painting are the chipping off of old paint that contains lead, the wearing of dirty working clothes and the shaking out of drop cloths that are full of lead paint. It is absolutely necessary for painters to have good washing facilities for their use at noon and on quitting work, because paint clings to the hands and can easily contaminate the food unless it is carefully washed off before the lunch pail is opened.

In employing women in any branch of the painting trade, it will be necessary to prohibit dry rubbing down of lead paint, mixing dry lead compounds with paint, using dirty drop cloths, and chipping off old lead paint. It will also be necessary to insist on the provision of hot water, nail brushes, soap, and towels for their use.

Commercial Artists or Retouchers

This highly skilled branch of painting, which gives employment to many women, has already been mentioned. It is enough to say here that every effort should be made to substitute zinc white for white lead in the work of retouching, and that where white lead paint is used, it should not be used in an air brush. The artists should know, as they often do not, that they are using white lead paint, and they should be warned never to put the paint brush into the mouth. Several instances have occurred of men and women who, severely poisoned with lead, have assured their physicians that they were using only zinc white, and in consequence the source of their symptoms was not discovered and they were allowed to keep on with their work until seriously poisoned.

Lithotransfer Work, or Decalcomania

This consists in preparing transfer paper which is used in impressing patterns on pottery. The colors used are largely lead colors, and they are ground dry and dusted dry on to prepared paper. When the work is done by hand, even at a table provided with a glass screen and an exhaust, there is decided danger of poisoning from the fine, light dust. Fortunately machine dusting of colors has been introduced of late, and this has lessened the dust, though it does not entirely prevent the escape of dust. Lithotransfer work is regarded in Europe as one of the most dangerous lead trades. No recent information is available concerning the industry in this country. In 1910 eight girls and one man were found in Chicago who had suffered from acute lead poisoning during employment in one large lithotransfer factory.

Manufacture of Red Lead and Litharge, or "Roasting Oxides."

In the United States the roasting of oxides is not carried on in connection with lead smelting, as it is in most other countries, except for one smelting plant. It is either done separately or in connection with the making of white lead. The dangers in the work consist in the fumes from the furnaces, and in the dust from dump-

Digitized by Google

ing, grinding, screening and packing the oxides. There is no lead industry in the country which shows such a variety of conditions as does the roasting of oxides. There are grinding rooms so free from dust that one would never know red lead was manufactured there, while there are others covered with scarlet powder from ceiling to floor. There are also furnace rooms practically free from fumes, with mechanical rabblers, with hoods over the feed doors, and with mechanical discharging under cover, and again there are furnace rooms with no devices for carrying off the fumes that escape when the furnace man opens the door and works the charge back and forth or rakes the oxides out into an open truck.

The charge for the furnace is not always pig lead; much of it may be dry scrap, dross, refuse from white lead works and imperfectly roasted oxides, and this dusty stuff lies in heaps on the floor of the furnace room. An almost invariable source of dust is the dump into which trucks of oxide from the furnaces are emptied, to be ground and screened, and another is the dump from the screening and bolting machines. In rare cases grinding takes place in water, but this has the disadvantage of necessitating the use of drying pans like those described in the section on white lead (p. 28), the emptying of which is always dusty and dangerous.

Lead oxides are very light and fluffy, and it is hard to prevent dust in dry grinding and bolting and packing. Even where mechanical barrel packers are used, the work is dusty, and packing small kegs by hand is very unsafe work. In an intensive study of the white and red lead industries, in 1911, there was found a great deal of lead poisoning in connection with white lead work, for the safety devices now found in that industry had not yet been introduced. There was, however, an even higher rate among the workers in red lead, and the manufacture of red lead and litharge has not undergone as much improvement in the years that have elapsed since then as has the manufacture of white lead. It does not seem safe to recommend the employment of women in any department of the manufacture of lead oxides.

Manufacture of Storage Batteries

This is the trade in which lead oxides are used in great quantities, and in which women have already entered and will probably enter in very considerable numbers in the near future. It is regarded in European countries as one of the most dangerous of the lead trades, and strict regulations are in force both as to the sanitation of the places in which the work is done and as to the methods of work permitted in them. It is only rather recently that we in America have awakened to the knowledge of the danger involved in this work. In 1913 it was found that in five storage-battery factories at least 17.9 men in every hundred employed in work exposing them to lead had suffered from lead poisoning, and this figure was far below the truth, because it was impossible to get anything but very scanty information from three of these factories. In one factory where records had been kept the rate in a single department was as high as 40 percent. This department has been made much safer in the five years since the study was made. The type of lead poisoning found is usually acute, with colic, and in severe instances lead convulsions, but not palsy except sometimes a slight form. This is explained by the fact that the employes are a shifting force. They seldom remain long in this kind of work; and if they become poisoned, it is because they have been exposed to large quantities of soluble lead, which is quickly absorbed and causes acute symptoms.

The work in a storage-battery factory is fairly complicated, but for the purpose of this study the processes may be divided into three classes: Those which have to do with acids or paint, not lead; those in which metallic lead only is handled; and those in which leda oxides, litharge, and red lead are handled. The first class may be ignored, for there is no lead danger involved so long as these processes—forming and charging and painting—are carried on, as they usually are, in rooms separate from the lead rooms. The second class includes casting or molding the lead grids for the Faure plates, trimming them of superfluous lead, casting and "spinning" the Planteé plates, and lead burning the final connections on the receptacle. This last is a soldering process in which pure lead is used instead of ordinary solder, and the heat is applied by means of an air-hydrogen, gas-hydrogen, or oxy-hydrogen flame. The third class covers the mixing of oxides with various liquids to form a paste, the rubbing of this

Digitized by Google

paste into the lead grid to make a Faure plate, and the inspection, cleaning, assembling and lead burning of these pasted plates.

By far the most dangerous work is mixing the paste and applying it to the plates. There is no need of describing these processes fully, because the employment of women in such work should never be allowed. However, exposure to lead oxide dust is not confined to these two departments. The pasted plates are dried; and, though the surface after drying is hard and firm, yet the plates can not be handled without raising dust, the shelves on which they rest are always covered with dust, and the work of lifting them from the racks and carrying them to the assembling room is dusty. The work in the assembling room involves handling these pasted plates in various ways.

The two departments in which women are likely to be employed, and, indeed are already employed, are the molding and casting of grids and the assembling of formed plates. In the molding room there is only metallic lead, and the dangers here can be dealt with fairly easily. Melting pots must be properly hooded; molding should, if possible, be mechanical, not hand work; the lead scrap from saws and trimmers should be caught in receptacles, not allowed to fall on the floor, and dross from the melting pots should be handled in the same way. The room should be large and amply ventilated, especially if gas is used under the kettles. In short, the employer should act on the principle that melting and molding lead, no matter how well done, results in some contamination of the air, and the only safe thing is to dilute this contaminating lead to the greatest possible extent with quantities of fresh air.

In the assembling room it is not so easy to do away with the danger of lead poisoning, because here is found not only metallic lead, but more or less dry lead oxides from the pasted plates. These plates are inspected and the imperfect ones are rejected, or straightened, trimmed and filed. Small plates, which have been pasted in pairs, are sawed apart. The edges and the projecting piece of the grid called the "lug" are cleaned to get rid of the paste and leave a shining metallic surface, so that good connections may be made by the lead burner. This work may be done by hand or by machine. The actual assemblers also handle these dry oxide plates, but not in such a way as to involve much dust. They group the plates together and slip a thin wood or rubber separator between each pair of plates. Then these groups are fastened together by the lead burners.

In 1913, in two factories employing 620 men in lead work, the proportion of cases of lead poisoning in these different classes of work was as follows:

Casting—metallic lead only	1.7
Mixing paste—dry lead oxides	40.0
Pasting plates—lead oxides, dry and wet	19.4
Assembling and lead burning	10.7

This shows how much greater is the risk in assembling and lead burning than in casting, the added element of risk being the presence of lead oxide dust. If women are to be employed in the assembling and lead-burning department, great precautions will have to be taken. The space allotted to each worker must be much more generously calculated than in an ordinary factory. Not only must there be no overcrowding, but there must be a very ample supply of air. No oxide dust must be allowed to accumulate on floors or benches, and no dry cleaning must be allowed. Benches must be wiped off with moist cloths and the floors mopped or flushed. Racks of dry plates must never be stored in this room, nor the drying cabinets be placed in this room. After the dried plates have been removed from a rack this rack must be wiped with a wet cloth before it is used again. Lug cleaning must be done by machine and the dust carried off by suction. It is far better to separate the actual processes of assembling from the work of inspection, trimming, sawing and lug cleaning. If this is done, assembling and lead burning will probably prove to be as free from danger as the work in the molding room.

Glazing of Pottery and Tiles

The pottery industry of the United States has never, up to now, given employment to large numbers of women in those occupations where lead poisoning is a danger. In 1910 and 1911 the whiteware industry, which was carried on chiefly in the region around East Liverpool, Ohio, and in and about Trenton, N. J., had 393 women engaged in lead work in 68 potteries, while 2,112 men were working in these same processes. At that time lead poisoning in the potteries, so notorious in England and Germany, had attracted no attention at all in this coun-

Digitized by Google

try, perhaps because the industry was not large and was concentrated in two regions. Many improvements have taken place in American potteries since that date, especially in white-ware potteries where the labor is strongly organized. The so-called yellow ware, and art and utility ware is made in the Zanesville (O.) district chiefly, and the labor is entirely unorganized. Tile factories are much more scattered, being found in many States. Here, too, the labor is unorganized.

The glaze used in the white-ware potteries which were visited contained from 1.75 to 33.3 percent of white lead. In the potteries making art and utility ware (yellow ware) and in the tile factories the glazes contain from 5 to 60 percent of white lead. The dangerous processes are mixing the glaze, dipping ware into glaze, cleaning the dipped ware to get rid of the excess of glaze and stacking it on boards or trays to be fired, and decorating it by the processes known as color blowing, or tinting, and ground laying.

Mixing is done by unskilled laborers under the direction of a skilled foreman. The mixed glaze is poured into tubs for the dipper, who is a highly skilled workman. He immerses the ware in the glaze, brings it out in such a way that the coat of glaze is evenly distributed all over the surface, and puts it on a board or tray to dry. This work is not done by women in the United States except sometimes in art-ware potteries, when the vase is both dipped and brushed with glaze. The dippers' helpers, however, are women, except in sanitary-ware potteries, where the large and heavy ware could not be lifted by women. The women do what is called finishing—that is, they remove the excess of glaze either by sponging or by rubbing it with a dry, rough fabric, or by scraping with a knife, and blowing or brushing away the dust. These women also stack the ware on boards for the glost-kiln men, they clean the boards on which the dipped ware is carried, sometimes by sponging, but sometimes by pounding against the floor or wall to shake the dust off, and they sweep up the glaze room. The rate of lead poisoning among these women employed in the potteries in 1911 was just below 20 percent, while among the men dippers it was only 6.5 percent. In the art and utility ware potteries this difference between the two sexes did not appear. The rate there was a little over 20 percent for both sexes. The workers in the latter industry are exposed to greater dangers than those in white ware, because the glaze is richer in lead, more decorating is done with lead colors, and a lower standard of living, due to wages being decidedly lower than in the white-ware potteries, makes them more susceptible.

The glazing of tiles is sometimes fairly safe work, sometimes very bad. For white tiles the glaze may contain as little as 5 percent of lead, and it may be applied by machinery. But colored glazes may contain 50 or even 60 percent of lead, and dipping is done by hand. "Fettling," that is, scraping off the excess of glaze, is more dangerous than the actual glazing of the tiles because it is dustier. In all English tile works and in many German ones it is the rule to scrape the excess glaze while it is damp and let it fall into a pan of water. In all the tile works visited in this country much of the fettling, if not all, is done after the glaze is dry, and the glaze dust is allowed to fall anywhere.

Color blowing, or "tinting," has given way largely to decalcomania—decoration by means of lithotransfer paper. Though the making of lithotransfers is dangerous work, their application to pottery ware is perfectly safe. In tinting, the colors are applied in the form of a spray driven through an atomizer by compressed air. The ware is held under a hood, and an exhaust is supposed to carry off all the spray that does not fall on the surface of the ware. Ground laying consists in dusting dry colors on a prepared surface by means of pads of cotton. Both kinds of work involve a good deal of risk unless great precautions are taken.

A visit to an English pottery or tile works will convince any one that it is possible so to construct dipping rooms as to allow of thorough flushing down, and to carry on dipping in such a way that the room is kept clean, and finishing in such a way that the women who scrape the glaze from ware and tiles run very little risk of lead poisoning. In English potteries in 1910 the rate of plumbism was 0.8 percent for men and 1.5 percent for women, while in 68 American potteries and tile works in 1911 the rate was 8 percent for men and 14 percent for women—almost exactly ten times as much. The difference between the two countries at that time was very striking, but conditions in American potteries have improved since then, and the contrast is not so grent now.

Digitized by Google

Manufacture of Porcelain Enameled Sanitary Ware

This is a very dangerous lead trade, in which women have never been employed and probably never will be, for the work requires a good deal of physical strength. The processes involving exposure to lead are grinding the enamel, which contains varying proportions of soluble lead, and sifting it thickly over red-hot ironware, in the course of which great clouds of dust are given off. The work is done on piecework basis; the firing of the ware is heavy and very hot, both the heat and the great exertion increasing the susceptibility of the enamelers to lead poisoning. The rate of poisoning among 1,012 men employed during 1911 was 21.4 percent, but 148 men who were examined carefully showed a rate of 36 percent.

Compounding of Rubber

The compounding of rubber is the only process in the rubber industry that involves exposure to lead. Litharge (lead oxide), lead sulphate (commonly called sublimed lead), and in rare instances white lead are sifted and bolted, weighed and mixed in moxing mills with the crude rubber. The risk here is from lead dust, and it can be minimized by careful handling, scrupulous cleanliness of the premises and the use of exhausts at the scales and mixing mills. This work has never yet been done by women and it is not advisable that they should be employed in it.

Prevention of Lead Poisoning

It is not hard to remember the rules for protecting workers against lead poisoning, if one bears in mind the fact that lead enters the human body chiefly through the mouth, either in the form of dust and fumes or smeared on the surface of food and tobacco. All the rules formulated for the lead trades by sanitary experts are based on the prevention of lead dust and fumes and the necessity for bodily cleanliness on the part of the workers. Briefly stated, the following rules should be enforced in every lead industry where women are to be employed:

Scrupulous cleanliness of floors, walls, work benches, window sills, tops of pipes, and all other surfaces where dust might collect. Cleaning should be done wherever possible with water or oil. Dry cleaning should be forbidden during working hours.

Ventilation should be more ample than that required for work that is free from lead.

All dusty work should be carried on under cover, or with an exhaust so placed as to catch the dust at its point of origin.

All receptacles for molten lead should be hooded and the hood connected with an air exhaust; dross skimmings should be thrown into a receptacle.

Lead scrap and trimmings should be caught in receptacles, not allowed to fly over the floor.

No dry rubbing of lead paint and no scraping or brushing of dry lead glaze should be allowed.

A full suit of working clothes of washable material should be worn by every woman engaged in lead work. This suit should be laundered at least once a week. If there is any exposure to lead dust, a washable cap should be worn and laundered at least once a week. So far as the work permits, gloves, preferably washable, should be worn and should be washed at frequent intervals.

No food should be taken into a workroom; no worker should eat lunch without first washing her hands thoroughly with soap and hot water and the use of a nail brush. Women should be advised to rinse the mouth or brush the teeth before eating lunch.

A physician should be employed to supervise the woman lead employes. He should examine on employment, or shortly after employment, every woman who is to engage in lead work, and should reject those who are anemic or show evidence of disease of lungs, heart or kidneys, or who are pregnant. It is advisable to reject also women suffering from obstinate constipation, women with very defective teeth, and married women who are in the child-bearing period. The physician should re-examine women engaged in lead work at frequent intervals. It is better to make a cursory examination once a week than a more thorough one once in two months.

In deciding as to the length of the work day for woman lead workers, it must be remembered that the longer the hours the greater the dose of lead absorbed, and the shorter the period for elimination of the dose before the next work day. It must also be remembered that fatigue increases susceptibility to lead poisoning, and so does a heated or humid atmosphere.

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M. D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

CHOICE OF AN ANESTHETIC

By BERTHA VAN HOOSEN, M.D.

SINCE the introduction of ether in the early forties of the last century, a dozen different anesthetics have entered into competition. Nearly every decade has brought a new one, beginning with nitrous oxid and choloroform, passing to local anesthesia, introduced in the eighties, spinal analgesia developed in the nineties, and scopolamin-morphin at the beginning of the present century. Nearly every avenue in the body has been used for the purpose of inducing anesthesia. The lungs by inhalation of vapor through the nose, mouth or trachea; the tissue itself and the spinal canal by direct injection of analgesic solutions. The subcutaneous infiltration of solutions to produce general or local anesthesia, and the lower bowel through the introduction of an anesthetic mixture. When one considers that a choice of chloroform, ether, nitrous oxid, ethyl chlorid, oil ether, cocain, novocain, apothesin, stovain, and scopolamin-morphin is offered our surgeons, there is reason for surprise that ether, the earliest of anesthetics, still heads the list in popularity.

Another surprise is that, in spite of such a variety of anesthetics, few surgeons make use of more than one. At the Mayo and Ochsner Clinics we see ether used for all kinds of patients, regardless of age, disease, or character of the operation. At the Farr and Harris Clinics we see novocain used in the form of local anesthesia for a large percent of the cases. Other clinics employ gas to the exclusion of all other anesthetics. It must be bewildering to one who wishes to follow in the footsteps of those who are experienced. Before we make a choice of an anesthetic, let us consult the patient, the anesthetist and the treasurer of the hospital. The patient says that ether—and chloroform, but in less degree—is disagreeable to inhale, and that the experience of being taken to the operating room and prepared for anesthesia is harrowing, and that the condition of mind and body, while coming out of the anesthetic, is extremely unomfortable. The patient also says that with local anesthesia the same objection applies in regard to going to the operating room in a conscious state and that the strain of being conscious during the operation is decidedly objectionable. If cocain is used, the feeling of faintness, even though the patient does not faint, is often distressing, and many complain that the anesthesia is not always perfect and that the suffering is considerable. The anesthetist finds ether and chloroform produces a tendency to vomit during the anesthetic, and produces an accumulation of mucus in the throat. The respiratory apparatus is often greatly disturbed, and the paralysis of the tongue and jaw muscles tend to interfere with the smoothness of the anesthetic and cause annoyances which can not in any way be forestalled. With gas anesthesia the anesthetist feels in long operations a constant strain. The quantity of gas necessary for anesthesia must be determined by so many factors, such as painfulness of the operation, touch of the surgeon, susceptibility of the patient that the anesthetist is constantly varying the amount of either gas or oxygen or the mixture. If the nature of the operation demands relaxation, here gas fails entirely, and ether must be mixed with the gas in varying proportions. The treasurer of the hospital has some very interesting statistics on anesthetics. The average cost per hour of ether anesthesia is approximately 25 to 50 cents; of chloroform, 20 to 40 cents; of gas, 2 to 5 dollars; of scopolamin-morphin, 10 cents; of local anesthesia, 10 to 25 cents.

The surgeon looks upon this subject from an entirely different angle. He has a knowledge of the patient's general condition, of operative technic, and the special field of surgery. The success of the operation must not be hampered by the cost of the anesthetic, by the nervousness of the

Digitized by Google

patient or the difficulty that the anesthetist encounters. Nevertheless, he should not be so mechanical or dogmatic that he will disregard patients, anesthetists, or hospital expense, but should co-operate to satisfy all concerned. Each anesthetic has distinct and peculiar advantages, as well as disadvantages. To avoid the disadvantages where possible, and to secure all of the advantages, should be the problem before the surgeon. In making a choice of an anesthetic, one should not make the mistake of following the vegetarian with his one-sided diet nor the diabetic who is forced to eschew so many kinds of food, but rather he should emulate the man who takes a mixed diet and a balanced ration. This method may be seen in operation at Dr. George W. Crile's Clinic in the Lakeside Hospital, at Cleveland, O. Here the anesthetic is begun by a hypodermic dose of scopolamin-morphin given in the patient's room. When the patient is brought to the operating room, gas is administered to induce anesthesia. The operation is begun by the injection of a local anesthetic sufficient to anesthetize the field of operation, and at different times during the operation when relaxation is required, ether is administered through the gas apparatus. This gives us a wonderful example of mixed anesthesia. Another most satisfactory mixed anesthesia may be obtained by giving two or three hypodermic doses of scopolamin-morphin in the patient's room. When the patient reaches the operating room the field of operation should be thoroughly infiltrated with apothesin, and if relaxation is desired at any time during the operation choloroform in small quantities will be efficacious.

Any mixed anesthesia should always be a lighter anesthesia than the anesthesia that is produced by the use of one anesthetic. The advantage of this light anesthesia goes much further than the safety of it during the operation. The unfortunate sequelæ of respiratory or kidney complications, the post-operative vomiting, and the paralysis of the bowel and bladder will be largely avoided if the mixed anesthesia has been employed. The elimination of a large amount of one anesthetic will no doubt be a greater strain upon some one organ of elimination than the elimination of small amounts of various anesthetics that use many different avenues for their escape. Of greatest importance is the nerve blocking that we get from either the scopolamin-morphin injections or from the apothesin. In a large proportion of operations the prevention of shock and psychic trauma and the distribution of avenues of elimination will not influence the mortality, but in other cases of a serious nature it is perhaps the chief factor in saving the life of the patient. As an illustration, during the past three months there have been in our clinic 104 operations with no deaths. Ten of these cases presented such grave conditions that only attention to details with experienced judgment on the part of operators, anesthetists and nurses could have saved us from having a mortality of 10 percent instead of zero; ten of the cases which might easily have resulted disastrously are as follows:

1. A cholescystectomy in a patient 65 years of age, weighing 275 pounds, who came to the operating table with a very irregular pulse and difficult breathing, largely due to a moderate degree of ascites. Patient passed through the operation uneventfully and made a good recovery, leaving the hospital within three weeks from date of operation.

2. Patient, 79 years of age, underwent a panhysterectomy for advanced carcinoma of the cervix; convalescence uneventful; left the hospital at the end of four weeks.

3. Retroperitoneal cyst in a patient who had been under emetin treatment for one year for return carcinoma of the cervix. Patient has made a good recovery and is still in the hospital.

4. A patient, 65 years of age, exsanguinated by hemorrhages from the right kidney. Nephrectomy for very large hypernephroma; bleeding so profuse during operation that clamps were left on the arteries in place of ligatures. Secondary hemorrhage followed the removal of the clamps. Patient given intravenous blood transfusion; has made a good recovery, is still in the hospital, but will leave in a few days.

5. Gastrectomy and gastroenterostomy for carcinoma of the pyloric end of the stomach. Patient much emaciated and suffering from pyloric obstruction at the time of operation. Uneventful recovery. Patient has gained five pounds since leaving the hospital.

6. Cholecystectomy in a patient who had at the time of the operation a septic lung condition due to the diseased gall-bladder. Lung condition cleared up rapidly, patient left the hospital at the end of a few weeks in good condition.

7. Cholecystectomy for gangrene of the gall-bladder; patient's urine at the time of operation contained bile, sugar, granular

Digitized by Google

cysts and albumin. Patient had one convulsion the day following the operation, but made a good recovery, leaving the hospital at the end of five weeks.

8. Thyroidectomy which presented great difficulty because of a four-lobe thyroid gland, and because of the high degree of hyperthyroidism. Patient made a speedy recovery, leaving the hospital at the end of one week.

9. Salpingo-hysterectomy following an operation five weeks previous for septic pelvic peritonitis. Patient made a good recovery, and one week after the hysterectomy a complete laceration of the perineum was repaired; also successfully. Patient left the hospital at the end of four weeks.

10. Cholecystectomy and appendectomy in a patient who had been suffering intense toxemia which had resulted in paralysis of the lower limbs, making it impossible for her to walk for eleven months previous to the operation. Three weeks after the operation she left the hospital walking.

In all of these cases the patients were given an operation because there was practically no chance for them without, but the happy results can be attributed quite as much to the good work of the anesthetist, the choice of anesthetic, and the post-operative care as to anything that was done in the operationg room. One of the reasons why light anesthesias are not more popular is because few anesthetists and surgeons understand the value of effective restraint during the anesthetic. There is no doubt that ether can be given so that the reflexes will be lost for short periods only during the operation, and not during the entire time. On the occasions when relaxation is imperative for operative procedure, the anesthetic can easily be deepened and the reflexes completely lost, but the anesthetist is so fearful lest any movement on the part of the patient will disturb the sterile drapes about the field of operation, or annoy the surgeon, that a much deeper degree of anesthesia than is necessary is held throughout the operation.

Anesthesia so deep that tongue forceps, tracheal tubes, or mouth gags have to be used, will be productive of more discomfort and annoying sequelæ than light anesthesia with any or every kind of restraint that can be devised to keep the patient immovable upon the operating table. The importance of a choice of anesthetic makes the following case records of interest These records have been selected because they show the factors that are of prime importance in choosing our anesthetic:

1. The age of the patient.
2. The nerve supply of the field of the operation.
3. The length of operation.
4. The condition of the organs that will be affected by the anesthetic.

Case I. Mrs. C., Middletown, O., aged 74. Passed the menopause successfully at the age of 46. Came to Dr. Mabel Gardner, of Middletown, O., complaining of a cold, which had continued over a period of six or eight months. Cough constant and annoying; loss of weight and strength; has a history of a vaginal discharge for ten years, which gradually became bloody three years ago; no hemorrhages; eight years ago was told that she had a tumor as large as a quart cup, but refused operation. Examination revealed the abdomen enlarged, filled with a firm mass which extended to the level of the umbilicus; cervix slightly patulous; bleeding at the touch; no nodules, enlarged glands or erosions visible at the cervix; fundus enlarged and blended with the tumor mass; weight at this time 112 pounds. The usual preparation for operation per vagina had to be discontinued, due to profuse bleeding caused by the douche. Anesthesia was secured by giving morphin ⅜ gr., scopolamin 3-100 gr., in three divided doses, each dose consisting of morphin ⅛ and scopolamin 1-100, the interval between injections one hour. During the operation 35 drops of chloroform were given at intervals varying from 5 to 10 minutes. Midline incision below the umbilicus brought to view an ovarian cyst of the right ovary, nine inches in diameter, and filled with amber-colored fluid in multilocular pockets. The liver edge found smooth; fundus of the uterus found enlarged to the size of a five-months' pregnancy by fibroid growths, and the cavity of the uterus filled with carcinomatous masses. Pan-hysterectomy performed, gauze drainage made into the vagina and glass drainage in the abdominal wound. Operation one hour in length. Five pints of tap water with one ounce of soda bicarb. in the rectum was given in the operating room. Post-operative analgesia morphin 1-32 gr., scopolamin 1-400 gr., repeated every four hours for thirty-six hours. Convalescence was marked by the cough chiefly and its troublesome effects, which appeared in wakefulness and irritation. On the sixth day some of the sutures became loosened and the wound

Digitized by Google

was tightly strapped with adhesive. The temperature varied from 99.6 to 101.6 for the first few days; it gradually subsided to normal on the tenth day, at which time the cough was also under control. The patient sat out of bed on the thirteenth day for a few minutes; sat out all day on the eighteenth day, and went home from the hospital on the twenty-sixth day. Six months later the patient reports herself in better health than for ten years; has gained twenty pounds in weight, has no cough, and is doing her own housework.

Case II. Mrs. S. M., aged 30. Referred by Dr. Vesper Schaeffer, of Chicago. Patient suffering from complete prolapse of the uterus with ulceration of the vaginal mucosa and two ulcers on the cervix, one on the anterior and the other on the posterior lip. Patient also had very extensive hemorrhoids. Operation consisted of a two-stage operation, the first in the removal of the cervix, which was sent to the laboratory for diagnosis of suspected malignancy. A complete removal of the hemorrhoids was done at this time. Laboratory report confirmed the suspicion of scirrhous carcinoma of the cervix. Four days after the amputation of the cervix and the hemorrhoidectomy a pan-vaginal hysterectomy was performed, and every effort was made to support the bladder and repair the perineum so that the prolapse would be relieved. Both operations were performed under an anesthetic, consisting of two hypodermic injections, one hour apart, each injection containing morphin ⅛ gr. and scopolamin 1-100 gr. During the first operation no other anesthetic was necessary, but during the second operation a small amount of ether was given at various stages during the operation. Patient made a very comfortable uneventful recovery, leaving the hospital eighteen days after the operation. The operation was performed on the 20th of August, 1920, and the patient was seen by Dr. Schaeffer two weeks ago, who reported that she was feeling very well, had no sign of prolapse, and was doing her own housework and helping to care for one of her relatives.

Case III. J. B., aged 9; has had three attacks of appendicitis during the past year; had an attack of appendicitis within the last two weeks; anesthetic consisted of 1-16 gr. morphin, 1-200 gr. of scopolamin, and repeated at the end of an hour; operation performed one-half hour after the second dose. On being taken to the operating room the patient did not seem to be asleep and yet paid very little attention to either preparation or to the administration of a few drops of chloroform. Operation required fifteen minutes, during which time less than a dram of chloroform was administered. Two days after the operation the child did not know that he had been taken to the operating room or that an operation had been performed; left the hospital on the fifth day, the wound having been closed throughout with catgut.

Case IV. Mrs. R., aged 30, entered the hospital for tonsillectomy. Anesthetic consisted of scopolamin 1-100 gr., morphin ⅛ gr., repeated in one-half hour, and brought to the operating room one-half hour after the second dose. Patient did not seem to be asleep or unconscious. Opened the mouth wide when asked to do so, and made no complaint when tonsils were removed. Sat up after the operation, spat out several mouthfuls of blood, was taken to her room, where she slept several hours. On awakening she was not conscious that she had been taken from her room. Patient was suffering from dementia precox and had greatly dreaded the operation. She left the following day in good condition.

In choosing an anesthetic the following suggestions may aid our selection:

1. Psychic trauma can be prevented by hypodermic doses of scopolamin-morphin administered to the patient in her bed previous to taking her to the operating room. This is the special virtue of scopolamin-morphin anesthesia, and the only anesthetic which can be used for this purpose.

2. Children under two years of age bear straight ether better than any other anesthetic.

3. Patients over 70 bear scopolamin-morphin anesthesia better than any other anesthetic.

4. Patients in shock can undergo operation after the administration of one small hypodermic dose of scopolamin-morphin and no additional anesthesia.

5. Chloroform is a much safer and more manageable anesthetic to relax the patient where initial doses of scopolamin-morphin have been given. In giving chloroform or ether to produce relaxation, it should be given intermittently and discontinued for a short period as soon as the relaxation is obtained.

6. When the circulation is depressed, use ether with or without preliminary scopolamin-morphin medication.

7. Where the respiratory organs are

Digitized by Google

irritated, avoid ether and substitute chloroform.

8. If the circulation is not depressed, old patients bear chloroform better than ether.

9. In carcinoma or infected tissue, avoid local anesthesia.

10. In infected tissue, blocking at a distance from the field of operation is safe and satisfactory.

11. Apothesin is as efficient as cocain and novocain, and in very large doses is not noxious.

12. Successful local anesthesia requires special skill and experience on the part of the anesthetist, and failure in getting good results is more often the fault of the surgeon than of the solution used for producing anesthesia.

13. Gas anesthesia should never throw the patient into convulsive movements. When the patient goes into convulsive movements the gas anesthesia has become dangerous and must be discontinued at once.

14. Anesthesia induced with chloroform administered drop method and continued with ether, also drop method, is preferable to straight ether.

15. In any form of anesthesia the abolishment of the reflexes is always dangerous and should not be continued for a long period of time.

16. Every anesthetist should learn the stages in the operation where no anesthetic is necessary and also the stages where anesthesia to the point of abolishing the reflexes is required.

17. In giving a light anesthesia, see that the patient is securely fastened onto the table, and that the hands are so cared for that they cannot possibly disarrange the sterile dressings if movement should be attempted.

18. In case no initial dose of scopolamin or atropin has been given, the patient's throat may become filled with mucus. In such a condition give at once a hypodermic injection of scopolamin 1-100 gr.

19. Exceptional patients are not susceptible to any form of anesthesia, and these patients will only succumb to a succession or a combination of anesthetics. If the patient is not anesthetized with gas, after a reasonable amount has been administered, change to ether. If ether is not efficient, change to chloroform. If the chloroform does not produce anesthesia, do not persist after giving a dram, but give the patient 1-50 gr. of scopolamin and ¼ gr. of morphin, unless there has been an initial dose already given before starting the gas, ether or chloroform, and at the end of ten minutes try again gas, ether or chloroform.

20. Teamwork between the operator and anesthetist brings about a safer and more satisfactory anesthesia than the old way of regarding it as being the duty of the anesthetist to keep the patient so deeply under the anesthesia that the reflexes are completely abolished during the entire operation. With our present knowledge of anesthetics and areas of sensitiveness throughout the body, patients should not dread the anesthetic and its results, more than they dread the operation. The anesthesia should be the pleasantest of the hospital experiences, and the anesthetist should consider her position relative to the surgeon analagous to an accompanist to the soloist. To know the advantages and disadvantages of each anesthetic, and to know how to avoid these disadvantages and gain only the advantages, should be the aim of the surgeon and the anesthetist. Only by working together in the interests of the patient will ideal anesthetic conditions prevail.

DELIVERY OF THE PLACENTA

By BERTHA VAN HOOSEN, M.D.
Chicago

A FEW weeks ago in the American Medical Association Journal, Dr. Baer, of Chicago, Ill., published a paper in which he described a method called the indirect method of delivering the placenta. This method consists in waiting one-half hour for the placenta to be detached, then grasping the abdominal wall above the umbilicus, the patient is instructed to bear down and the placenta is delivered. In the discussion of this paper which was read before the Chicago Medical Society, Dr. Baer criticized very severely the method of delivering the placenta by traction on the cord. This method of delivering the placenta by traction on the cord has been employed among primitive people from earliest time. It is the only method known in the animal kingdom. Dr. Baer's objection to this method is that back in the 17th century this method was in vogue, but had been given up as dangerous, and that it would be a step backward to take it up again. If Dr. Irving Potter, of Buffalo, is to be criticized for his elective version because it is contrary to nature, then delivery of the placenta by traction on the cord should not be criticized, for it is certainly the

Digitized by Google

only natural method. One objection to Dr. Baer's method is that few obstetricians like to wait one-half hour for the placenta to become detached. Another objection is that in many cases long before one-half hour has elapsed after delivery the bleeding from the vagina will become so profuse that some kind of interference will be necessary in order to empty the uterus and control the hemorrhage.

Still another point is that when the patient bears down, the hand which has grasped the abdominal wall above the umbilicus loses its grip on the muscular part of the abdominal wall on account of the contraction of the abdominal muscle, and only the skin and subcutaneous tissues will remain in the grasp of the hand, with the result that the abdominal contents will not be materially affected by Dr. Baer's manipulation. It is also difficult, if not impossible, to tell exactly when the placenta with its membranes have become perfectly detached; and just as long as the placenta is in the uterus, attached or unattached, there will be a constant loss of blood and formation of clot in the uterus because of the incomplete contraction of the muscular coats. The longer time that the placenta remains in the uterus, the greater the loss of blood, all other things being equal. The blood that is retained in the uterus and passed as clots with the placenta is quite as much a loss to the patient as though it had been passed per vaginum during or after the delivery of the placenta. The special problem in the third stage of labor is to secure a tonic contraction of the uterus; whenever the uterus is not tonically contracted there is a loss of blood, either filling up the cavity of the uterus or showing externally. To secure this tonic contraction of the uterus we often have to resort to various stimulants. The great stimulant for tonic contraction in the third stage is the presence of something in the dilating portion of the uterus, or, in other terms, the cervix. This something may be the hand, gauze packing, or a portion of the placenta. Following the delivery of the child the size of the uterus is greatly reduced, and this reduction results in the placenta being loosened from its attachment. A part of the detached placenta may now be drawn into the cervix by making traction on the cord, thereby stimulating greater contraction of the uterus and continued detachment of the placenta. By keeping up the traction on the cord the placenta becomes completely detached in a very short time, ten minutes as a maximum. As soon as the placenta is completely detached, traction on the cord, with the help of the "vis a tergo" furnished by the contracting portion of the uterus, brings the placenta into the vagina and on to the perineum. The entire placenta covered by its membranes can now be lifted out of the vagina by making traction on the cord upward in the direction of the abdominal wall. This theory has been applied, and stood the test of practical experience in 1,800 deliveries during the past five years. The assertion can be made that in these 1,800 deliveries only three adherent placentas have been met with. An adherent placenta can be recognized at once by the appearance of the cervix at the vulva when traction is made on the cord. In these adherent cases no portion of the placenta can be drawn into the cervix, and waiting even three-quarters of an hour has not been helpful in detaching the placenta. All such cases are pathological and should be managed by manual removal of the detached placenta. If for no other reason than to diagnose quickly an adherent placenta, traction on the cord can be recommended. The majority of these patients who have been delivered by traction on the cord lose no blood while the placenta is being delivered, and where an ampule of pituitrin or ergotin is used routinely after the delivery of the placenta, the additional statement can be made that no blood is lost during the first half hour after delivery.

When the placenta is delivered by traction on the cord, the uterus must never be handled in any way; no massage or pressure is allowed. Delivering the placenta by traction on the cord gives us a painless third stage. Many women complain bitterly when the uterus is massaged to produce tonic contraction, and I have never seen the Crede method of expression employed without causing considerable suffering to the patient. Not only does the handling of the uterus produce pain, but it may be productive of irregular contractions in the uterine musculature, and result in that most unfortunate accident—inversion of the uterus. In thirty years of experience, four inversions of the uterus have been seen, and all were in the cases where the Crede method of expression was used, with one exception, in which the placenta followed spontaneously after a forceps delivery, no Crede or traction on the cord having been employed. In this case the patient was moribund at the time

Digitized by Google

of the delivery of the child and placenta, and in consequence there was no uterine contraction and no hemorrhage, the inversion being caused by atonicity. When the placenta is delivered by traction on the cord, the membrane completely envelops the placenta as it is delivered, and retained membranes have not been noted in any of the 1,800 cases. The amount of traction that should be made is, of course, difficult to estimate. It should always be enough to make the cord very taut, but not so much that it will be torn away from its placental attachment; however, should this happen no harm would result, but nothing can be accomplished by traction greater than is necessary to bring the loosened portion of the placenta into the grip of the cervix. The delivery of the placenta by traction on the cord offers to those who are brave enough to cut loose from authorized teaching the following advantages:

1. A painless third stage.
2. A bloodless third stage.
3. Complete removal of the membranes.
4. Prevention of inversion of the uterus.
5. A diagnosis of adherent placenta.
6. A third stage of not more than ten minutes.

GUIDE POSTS ON THE ROAD TO HEALTH

By ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

I—Care of the Teeth:

On rising at once rinse the mouth and throat with warm water. Fill the mouth with water and hold it while dressing, changing it occasionally. This is to soak the mouth preparatory to cleaning the teeth. Brush teeth with the mouth full of water, with or without paste or powder. Finish with brush dipped in a mild antiseptic solution, as Alkalol or Listerine.

II—Baths:

Take a hot and cold sectional bath daily on rising. This consists of rubbing the entire body in sections: (1) face and neck, (2) arms, (3) trunk, (4) legs—first with a very hot wet cloth and then lightly with one wrung out of cold water. Dry each section with a rough towel. This bath not only keeps the skin soft and healthy, but also stimulates the glands of internal secretions. The reaction is always pleasant. Six minutes only should be allowed for it. At bedtime, twice weekly, take a warm tub bath, at which time soap may be used fully.

III—Water Drinking:

Since more than 60 percent of the body structure is water, which is constantly being lost, it is important that enough water shall be taken in as drink to replace loss and to dilute and wash out impurities. Seven glasses daily seem to be the amount required by most adults. By scientific investigation it has been found that fatigue products pour into the blood in largest amounts the last hour of the forenoon and the last three hours of the afternoon. The hours for drinking water, therefore, should be eleven, three, four, five, two glasses in the evening and one on rising. To dilute fatigue products and to wash them out by way of the skin and kidneys means to keep them from becoming fastened in the body tissues and thus lowering vitality.

IV—Exercise:

This should begin before rising in order to start the body machinery after hours of inactivity. Begin by taking six deep breaths, exhaling them as slowly and completely as possible. These breaths are so like long, restful yawns that the author has named them "yawn breaths." In a long, slow expiration the diaphragm rises to its highest level, carrying with it the stomach and intestines which often gravitate during the day to a position much below normal. By this the onward movement of their contents is interfered with, and ill health is likely to result sooner or later. Stretching exercises, elevation of the legs to a right angle with the trunk, elevation of head and knees at the same time four or five inches above the level of the bed—these and other exercises before rising help to prevent constipation and increase the vigor of the body. These exercises may be repeated to good advantage after retiring, also especially the "yawn breaths," to raise the abdominal contents to their place. Every person should walk in the open air daily, as long as strength and time will permit.

V—Sleep:

From seven to nine hours of uninterrupted sleep should be assured. If sleep has been lost it should, when possible, be conscientiously made up.

VI—Food:

The human body is a methodic machine. Irregularity in meals disturbs its activities. Food should be adequate and well pre-

Digitized by Google

pared, and there should be sufficient variety. Meals should be eaten slowly and in quietness of mind.

VII—Posture:

The habit postures of the body not only affect its shape, but have much to do with the maintenance of health. In standing place the feet in the position of walking—one foot a short step in advance of the other, toes pointing directly forward. Hold the head high, not only in standing, but in walking and sitting. Keep the elbows as near the hip line as possible. This is the posture of self-respect and command as well as of health.

MADAME CURIE

MADAME MARIE CURIE is coming to the United States! She is coming by invitation of women. An enterprising magazine representative, Mrs. William Brown Meloney, called upon Madame Curie last summer and asked the simple question, "What would you have if you could be granted a wish?" And her reply was, without a moment of hesitation: "I would have a gram of radium. It should not be used for any ordinary purposes, but it should be kept sacredly for experimentation and especially in reference to the cure of cancer."

To the world at large the idea immediately occurs, "Why does not the discoverer of radium produce a gram for her own use?" The reply is that it is a very expensive process. During the war Madame Curie went to the front, established her own laboratory, and all the radium which existed in France was used in locating bullets, shrapnel, and testing the nature of wounds. There is no more radium in France. Madame Curie has none. From time to time she has received considerable sums of money, one sum being the Nobel Prize for Science. All of this money she has put into building the Curie Laboratory, which is the finest in the world of its kind. This laboratory is dedicated solely to experiments with radium. Students may come here from all over the world, but the great laboratory is silent, closed; for there is no radium with which to make experiments. No wonder the great woman scientist longs for a gram of radium to set the wonders of her laboratory in action once more.

Mrs. Meloney invited her on the spot to come to America and get a gram of radium, for here it does exist. Madame Curie is a teacher of science and she has a teacher's salary. She is one of the richest women in the world in scientific lore, but she has given the fruits of her labor to her laboratory. So she could not afford to travel westward.

Then something happened which has provided the way. An American woman who does not wish to have her name made public was able during the war to do a great service for her country. It cost her much in health and money. She made no complaint and expected no reward. But a few men who knew of her sacrifices invited her to a dinner and presented her with $5,000. In response to the gift she said: "I cannot accept this money for myself. I did make sacrifices for my country, but I saw men dying all around me, and I can not be paid for my services while they gave their lives. Do I understand, however, that this money is to be mine and that I may do with it as I please?" And when the givers said "Yes" she responded, "Then I shall find a way to invest it in some way for the benefit of the United States." When she learned of the desire of Madame Curie to visit this country and her great need and the need of science, through her, to possess a gram of radium, she contributed her $5,000 for Madame Curie's expenses. Therefore, the scientist is coming here.

Some time during her stay it is expected that she will be presented with a gram of radium for which she longs, and it is the idea and hope of Mrs. Meloney that it will be contributed entirely by women. The gram will cost $100,000. Thirty-nine thousand dollars or more have already been contributed. The money is deposited to the "Marie Curie Radium Fund, Equitable Trust Building, 37 Wall Street, New York City, N. Y."

None of this money can be withdrawn from the bank without the signature of five persons—namely, Dr. William Duane, of Harvard College; Dr. Robert Abbe, one of New York's most eminent physicians; Dr. Carter Wood, of the Crocker Memorial Research Laboratory, connected with Columbia University; Dr. Cariel, of the Rockefeller Foundation Laboratory; and Mrs. Robert G. Mead, Secretary of the Committee.

Money may be sent direct to this fund, or contributions, which will be properly forwarded, may be sent to the headquarters of the National American Woman Suffrage Association. The smallest of contributions will be acceptable. Let us

Digitized by Google

join in giving to coming generations the benefit of that great woman's wisdom.

Madame Curie has received honorary degrees from a number of European universities. Already a large number of American universities have expressed the desire to honor themselves by presenting to her an honorary degree. She will undoubtedly, therefore, go as far as Berkeley University, in California. She is expected to arrive about May 18th and will remain for a few weeks only.

PIONEERS OF PROGRESS — Elsie Inglis—the Woman With the Torch—by Eva Shaw McLaren, with a preface by Lena Ashwell. Published by the Macmillan Company, New York.

"To light a path for men to come" is the privilege of the pioneer; and the life of a pioneer, the hewer of a new path, is always encouraging, whether he who goes before to pen the way be a voyager to the Poles or the uttermost parts of the earth, in imminent danger of physical death, or whether he be an adventurer, cutting a path to a new race consciousness, revealing the power of service in new vocations, evoking new powers, and living in hourly danger of mental suffocation by prejudices and inhibitions of race tradition.

Great souls who sailed uncharted seas,
Battling with hostile winds and tide,
Strong hands that forged forbidden keys,
And left the door behind them wide.

Diggers of gold where most had failed,
Smiling at deeds that brought them fame;
Lighters of lamps that have not failed,
Lend us you il and share your flame.

The women's irresistible movement, which has so suddenly flooded all departments of work previously considered the monopoly of men, required from the leaders' indomitable courage, selfishness, and faith, qualities of imperishable splendor; and to read the life of Elsie Inglis is to recognize instantly that she was one of these ruthless adventurers, hewing her way through all perils and difficulties to bring to pass the dreams of thousands of women.

It is wonderful to read how slowly and surely that character was formed through twenty years of monotonous routine. The establishing of a hospice for women and children, run entirely by women, was not a popular movement, and through long years of dull, arduous work, patient, silent, honest, dedicated unconsciously to the service of others. she laid the foundations which led to her great achievement; and so, full of courage and growing in power, like Nelson, she developed a blind eye, to which she put her telescope in times of bewilderment; she could never see the difficulties which loomed large in her way—sex prejudices and mountains of race convictions to be moved—and so she moved them.

A most interesting life of Elsie Inglis, written a short time ago by the Lady Frances Balfour, has had a wide circulation, which has proved the appreciation of the public.

This second life appears at the request of "The Society for Promoting Christian Knowledge," that her sister should write a short memoir, to be included in the "Pioneers of Progress" series, which it is publishing.

In accordance with the series in which it appears, the Life is a short one, but it has been possible to incorporate in it some fresh material. Not the least interesting is what has been taken from the manuscript of a novel by Dr. Inglis, found amongst her papers some time after her death. It is called "The Story of a Modern Woman." It was probably written between the years of 1906 and 1914, and the outbreak of the war may have prevented its publication. The date given in the first chapter of the story is 1904. Very evidently the book expresses Elsie Inglis's views on life. Quotations have been made from it, as it gives an insight into her own character and experiences.

The endeavor has been made to draw a picture of her as she appeared to those who knew her best. Independent, strong, keen (if sometimes impatient), and generous, from her childhood she was ever a great giver.

Alongside all the energy and force in her character there were great depths of tenderness. "Nothing like sitting on the floor for half an hour playing with little children to prepare you for a strenuous bit of work," was one of her sayings.

Not to many women, perhaps, have other women given such a wealth of love as they gave to Elsie Inglis. In innumerable letter received after her death is traceable the idea expressed by one woman, "In all your sorrow, remember I loved her too."

Those who worked with her point again and again to a characteristic that distinguished her all her life—her complete disregard of the opinion of others about herself personally, while she pursued the course her conscience dictated, and yet she drew to herself the affectionate regard of many who knew her for the time during the last three years of her life.

What her own countrymen thought of her will be found in the pages of this book, but the touching testimony of a Serb and a Russian may be given here. A Serb orderly expressed his devotion in a way that Dr. Inglis used to recall with a smile: "Missis Doctork, I love you better than my mother and my wife and my family. Missis Doctork, I will never leave you."

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association Headquarters, 637 Madison Ave., New York

HELP FINISH THIS JOB

Hospitals and dispensaries have been conducted in war stricken countries for over three years. Much of this work must be stopped prematurely unless funds are raised to carry on until the end of the year.

Since the following story was compiled, wonderful news has been received from Serbia, and we have held up the Journal to get it in. In the work of the American Women's Hospitals in Serbia, the Serbian Government has offered to pay forty-five thousand dinars a month ($15,000) to keep up the work the A. W. H. started and has continued, and to help with the expenses so that the work will surely be carried on. For poor poverty-stricken, war-ravaged Serbia to make such an appropriation is a thrilling testimonial to the value of the work of the American Women's Hospitals; and this fact alone should justify the existence of the National Association, which made this committee possible and thus to do such a splendid piece of work.

THE American Women's Hospitals have five hospital and dispensary stations in Serbia. Tabulated reports covering the year's work up to October 31st, given in the January Journal, show over twenty-four consultations. The majority of the sufferers were children. Over eight hundred surgical operations were performed, and people afflicted with all kinds of diseases cared for in homes, hospitals and dispensaries.

Doctor Gray and her associates are women of great physical endurance, a high degree of medical and surgical skill, and the zeal of religious enthusiasts. These women work. There are no sinecures at home or abroad in the American Women's Hospitals.

The Nurses' Training School.—From the standpoint of permanent value this is one of the most important phases of the American Women's Hospitals' service in Serbia. The girls in training are very intelligent, eager to learn and grateful for instruction. They acquire a working knowledge of English and nursing in an amazingly short time.

District Nursing and Child Welfare.—

Digitized by Google

Dr. Etta Gray says: "We have been officially requested to hold classes for Serbian women, and have agreed to give the women selected a three-months' course of training—one month at the hospital, one at the dispensary with home visiting, and one month at the children's hospital with such maternity instruction as is possible. These people have suffered terribly from lack of care in sickness. It is dreadful to think of the mothers of a country facing the dangers of maternity without intelligent help at the time of their greatest need."

Dr. Etta Gray
Director in Chief, Work of A. W. H. in Serbia

The Gift of Sight

Eye diseases have been prevalent in Southeastern Europe (the Holy Land included) for ages. Blindness has been one of the greatest and commonest afflictions of those countries. Before the Christian era blind beggars sat by the highways—they are still sitting in these places begging. Scientific care has been unknown in many districts, and therefore the restoration of sight to the blind partakes of the miraculous in the minds of these simple folk.

Over one hundred neglected cases of cataract have been successfully operated upon, and people who have been blind for years are able to see. This is a minor phase of the American Women's Hospitals service, but if nothing else had been done the entire expenditure involved would be far more than justified.

Those whose contributions made this work possible have actually given sight to the blind.

Many of these children are suffering from bone, joint and glandular diseases, the result of undernourishment during the long years of the two wars forced upon Serbia. With proper treatment they improve very rapidly. They have great resistance, endurance and recuperative power. Most of the weaklings of this nation died long ago.

All of the medical women who have served with the Near East Relief Committee have been selected and equipped by the American Women's Hospitals. They have been stationed at different parts of Turkey and Armenia. This work has been largely for the relief of women and children. Many of the patients were girls who had been students at American Missionary Schools before the war. Their teachers were American women, and it was quite natural for them to come to American women for help. The routine reports

Dr. Mabel E. Elliott

THE LAST WORD

Doctor Elliott has taken over the Hospital and Dispensary Service at Ismidt, which will be conducted in co-operation with the Near East Relief Committee.

Digitized by Google

Court of the Children's Hospital at Veles

from these stations contain records of outrages and horrors which cannot be repeated.

The plans of the American Women's Hospitals for relief work in Armenia have been modified by the military activities of the Turkish Nationalists and the Russian Bolshevists. We have not been able to open the hospital and dispensary station at Trebizond. The personnel selected for this service sailed several months ago. Some of the physicians and nurses are temporarily stationed in Serbia, and those who went directly to Constantinople are engaged in relief work made necessary by the defeat of Wrangel's Army and the distressing influx of Russian refugees which resulted therefrom. This emergency will probably pass before long, and next year we hope to make just such a report of work done in Armenia as we made a year ago for France and are making at present for Serbia. The staff of the American Women's Hospitals is made up of skilful, level-headed, devoted women. These women not only give relief to the sick, but are a stabilizing social force wherever they go.

Sick, under-nourished children just admitted to the Hospital

Digitized by Google

One of the Pioneer Women in Medicine

By LUCY SEAMAN BAINBRIDGE

Cleora Augusta Seaman, M.D.

IN the early spring of 1860 a lady from Ohio was visiting an Eastern city. She called at the house of a clergyman whose home had previously been in her own city, and who had left a smaller charge for a large and influential church. Handing to the maid her card, which read as follows: "C. A. Seaman, M.D., 65 Seneca Street, Cleveland," she patiently waited. The reverend gentleman in his study received the card, glanced at it, and for the moment forgot all the many courtesies he had received from the family of that lady; forgot all the hospitality which she had extended to him and his family when they moved from the Western city to the Eastern one. In his narrow vision he could only see woman as a drudge; so taking up the card he pencilled on the back: "I refuse to see any woman who has so unsexed herself as to study medicine."

Ten years before the occurrence of this incident, Elizabeth Blackwell had, in the face of great citicism, blazed the trail for every woman in the study of medicine. Her sister Emily and a few others followed in her footsteps.

The world moves on; and the few men and women who would hold back the line of advance have not the ability to retard the onward sweep of progress.

The sketch of a noble and progressive woman begins in 1814, when she first opened her blue eyes upon life near the college of Middlebury, Vt., in the home of Lucy Boynton and Levi Stevens. The name of the baby, the doctor said, should be Cleopatra—the queen." It was too long, too fanciful, but by omitting the "pat" she was called Cleora Augusta.

In those early days, before the time of radiators and steam heat, there was in the living room a large open fire with kettle and crane. A sleepy nurse allowed the little Cleora to roll off her lap into the burning embers, with the result that to the day of her death she was badly scarred from her neck to the end of her spine. Tended on a pillow and lovingly cared for, her life was saved. When the baby was a few years old the family migrated by coach and canal—there were no railroad trains—to the village of Rochester, N. Y. The two black-eyed older sisters were sent to a boarding school—in those days called a Female Seminary—but the blue-eyed Cleora was too frail to go away from home, so she studied largely by herself, under the tutelage of her cousin, John Stevens, who afterward founded Denison University in Ohio, and was Professor of Latin and Greek for many years in that institution.

The village of Rochester, as with many new towns, had a few names which stood out very prominently, and one of these was that of "Old Deacon Sage," leader in the manufacture of boots and shoes, for which that city is now famous. A young man in the Deacon's home learned the trade thoroughly, and, as the cry on the part of the older people was "Go West, young man, go West!" this young man, John Seaman, and his seventeen-year-old bride, Cleora, ten years his junior, started by lumbering stage coach for the distant village of Cleveland, O., its population at that time being a little over a thousand.

The bride must have made a very pretty picture in her green calash bonnet made of silk and whalebone that folded up accordian fashion like a buggy top, and a mantilla or pelisse to match. As home-keeper and one of the leaders of the choir, as teacher in Sunday school, and president

Digitized by Google

of the Maternal Association, this young woman kept busy.

The young man prospered in business. He was known as "Honest John." At his death years afterward it was said by leading business men, "Not one grain of smut has ever touched the character of John Seaman."

One after another there came to their home seven children, of which the writer was the only daughter.

All during the years of rearing her children, Mrs. Seaman was constantly studying.

In a book written by Mrs. W. A. Ingham, entitled "Women of Cleveland," she says: "Mrs. Seaman was always reading medical works—seeking health at a water-cure where she had access to the physician's library. She was many years in advance of her time."

Hydropathy was the medical subject of highest interest in that day, and in her earnest efforts for the health of her boys they were obliged every morning to take a shower bath by turning a pail of water over themselves, even though they had to break the ice which had formed over night. It must be remembered there were no bath tubs with hot water appliances or tile-lined heated bath rooms in those days.

In the attic were all manner of braces which had been urged upon her growing children, so that they would have strong bodies and straight spines. Perhaps the boys with their ice-water shower baths, and the daughter upon whom was tried various spinal adjustments, did not sympathize as much as they should have, for one of the memories of the latter is the writing of a school composition on "Our Attic," showing only the humorous side of the discarded braces and cure-alls.

Before the days of the almost limitless array of breakfast foods, when sausage and cakes or ham and eggs were the usual early morning meal, this woman, who was ahead of her time, studied food values, and realized that whole wheat was a health food for growing children. She had to hunt up a mill, and there bought the wheat, the whole kernel; then improvised a sort of double boiler—one kettle within another. In this boiler the wheat was slowly cooked on the back of the stove from thirty-six to forty-eight hours. When served with cream it was more delicious than any breakfast food ever invented.

The "Plain Dealer" of Cleveland records in November, 1852, "a large meeting of ladies in the Old Stone Church, who, after some discussion, agreed to form a permanent society for the encouragement of medical education among women. A constitution was adopted and a board of management elected, of which Mrs. John Seaman was a member."

In the winter of 1857 and 1858 Mrs. Seaman was very much out of health and was sent to Philadelphia for special treatment at a water cure. Such institutions are called in England, "Hydros." As she had never been given to light reading or fancy work, the physician in charge was at a loss to know what to allow his patient to do between treatments. Within walking distance was the Women's Medical College, founded in 1850. There she had access to a medical library, and having studied at home she could make good use of it and could appreciate the lectures. The regular exercise and the agreeable companionship added to the medical treatments resulted in a measure of health and strength.

Mrs. Seaman returned to her home to meet the sorrow of the death of one of her children.

With no thought of a medical degree, Mr. Seaman worked out with his wife the following plan which would help her to regain her strength and interest her: Each day she was driven to the Western Homeopathic College, the only one in Cleveland then which would admit a woman to its lectures. In a tiny gallery were placed a comfortable arm chair and foot stool, with drapery adjusted at the sides. The male students would look up and smile and joke about their "guardian angel." However, they were still happier when they were invited to 65 Seneca Street to quiz in anatomy and other branches, and then stay for one of her bountiful suppers.

Early in 1860 eighteen young men and Mrs. Seaman received the degree of Doctor of Medicine.

The study of hydropathy naturally led to an interest in and study of medical electricity. The libraries undoubtedly were searched by her for information about this unknown power for good or ill. It is easy to imagine that in her quest she went back to the first manifestation recorded in 600 B.C., when by rubbing amber heads together the mystery of electricity was manifested. Doubtless she had read that quaint old book, the "Ethereal Physician," and its recorded experiments. Previous to that, in 1759, the wise old divine, John Wesley, wrote a pamphlet, entitled "The Desideratum—or Electricity Made

Digitized by Google

Plain by a Lover of Mankind and Common Sense."

Most of those writing later of electricity spoke of seven methods of employing it—electric bath, drawing sparks by irroration, friction, insufflation, exhaustion, and commotion. Realizing how little she knew of an inexhaustible subject, Mrs. Seaman kept to the efficacy of the bath.

An intelligent young man in the telegraph office near her home, who knew more than his dots and dashes, was interested and most helpful. Mrs. Seaman had been most successful in relieving pain and reducing inflammation of swollen joints in her own family. Her husband, who was interested in all her efforts, was ready to add a wing to their house, and Mrs. Seaman installed a bath tub for the use of electricity in water—the first one of its kind in Ohio, so far as could be learned. For a time it was much talked about, but Mrs. Seaman's record for doing good warded off any attempts to ridicule her and her venture.

An educated young lady helped in the practical working of the scheme, and now, at an advanced age, writes from her home in California: "Mrs. Seaman was a grand woman, and how beautiful in appearance! She worked for souls as well as bodies, and a host of ailing females knowing her love for medicine, and realizing not only her sympathy but her ability, came to her for relief in the troubles peculiar to women." There was no sign, no card, no advertising, but the sufferers came.

At first no charge was made, but later it was deemed wise to have those patients who were quite able to pay carry with Mrs. Seaman the expense of the work for the poor.

One illustration from among many will suffice. The garden at 65 Seneca Street went through to Academy Lane, on which were homes of smaller pretense. In one of these homes lived an English butcher and his wife. He went to work necessarily very early in the morning, leaving his wife in bed, a confirmed and helpless invalid, called by several doctors quite incurable. Neighbors did all they could. Mrs Seaman found her out, visited her, and later had her carried over to a chamber, which was called the "Lord's Room," in the home at 65 Seneca Street. Some one was always in that room—either a poor student studying for the ministry or some one in sorrow or sick, like Mrs. Kromak, the butcher's wife, who was lifted into the electric bath-tub each day and was well cared for. Gradually her bodily conditions were so changed that instead of her ankles being drawn up to her hips, and she unable to get up, the poor sufferer was able to walk with crutches and had but little pain.

At the funeral of Mrs. Seaman, one of her truest mourners was Mrs. Kromak, then a widow, who could walk comfortably with the help of a cane.

"In the late '60s women students were excluded from the classes of the medical college, and as a result a woman's college was organized and chartered in 1868. But in 1870," writes Dr. Hamilton Bigger, a well-known physician of Ohio, "the college again opened its doors to women by a majority of one vote. Of course, each man thus voting for the admission always claimed that it was his vote which did it. The women then transferred their property to the Cleveland Hospital College."

It was largely through the untiring zeal and influence of Mrs. Seaman that when the doors of the college were closed to women a woman's college was promptly started, and she was made the first president and one of the professors. In the winter of 1867 a class of forty intelligent, earnest women were enrolled as students.

In the first annual announcement of this new college, we read:

"Mrs. C. A. Seaman, who has been widely known these many years as being most successful in the treatment of chronic diseases peculiar to her sex, will, in connection with the chair of Theory and Practice, deliver a course of lectures on the Therapeutical Uses of Electricity, which will, together with the clinical advantages to be derived from her extensive practice and complete electrical apparatus for the employment of baths, etc., afford unparalleled facilities for the study of this most important auxiliary in the treatment of chronic diseases generally, and women especially."

In the second annual announcement, in the spring of 1869, was the following:

"The Seaman Free Dispensary has been established by the first president of the college, Mrs. C. A. Seaman, M.D. It occupies a room in the college building and is under control of the Faculty. As this is open every day and is largely attended, it becomes a daily clinic of very great importance; indeed, the clinical advantages in every department, embracing, as it does, an unlimited range of practice, is one of the distinguishing features of this college.

Digitized by Google

Each student will have ample opportunity for practical study at public clinics and at the bedside."

Mrs. Seaman passed on into the eternal life at daybreak, 1869. This little sketch is written of her as a pioneer woman in medicine, but to her strong character and influence and work in church and social life many incidents might be added. One such will suffice.

A few years after the death of Mrs. Seaman the writer took a journey around the world, and in the vicinity of Foochow, China, she met a young woman physician who was busy at work among the poor and enslaved women of that land. This physician was welcomed into so-called Chinese homes, even by the men, who came to realize her skill. She relieved suffering, and helped to break down walls of superstition, turning darkness into light. Methodist women of America had sent her out, and not only provided her support, but built a small hospital, well equipped, for this work of woman to woman.

"What part of the United States was your home? Where were you educated?" These and other questions the writer asked the young lady, but the replies brought no bond of mutual acquaintances. Then, when asked about her medical career, the young missionary said: "Oh, there was a lady in the West most kind to me. She gave me my first interest in medicine, and my first desire to help the women in China or India. I was in her large Bible class part of one winter, and had many talks with her in her home. Her name was Mrs. Seaman, of Cleveland. Did you ever happen to meet her?"

The trustees and faculty of the college and hospital of which Mrs. Seaman was the president passed resolutions of highest regard for her character as a Christian woman, wife and mother, as an unselfish worker for the poor and sick. They added that her death was a great loss to the cause of female education in medicine and practice.

A young man of Cleveland, Edwin C. Rouse, whose wife had been greatly helped by this great-hearted woman, wrote the following poem as his expression of her beautiful character:

Oh, rest is sweet, when setting sun
  Proclaims our honest labor done;
When toil is o'er, when victory won,
  Then rest is sweet.

But doubly restful is the rest
  That follows labor that has blest
Some overburdened, weary breast;
  Has bound some tender, bruised reed;
Has passed a hand, to hand in need;
  And proved a friend, a friend indeed;
This rest is blest; yes, blest and sweet.

Such rest is thine, beloved one!
  Such rest was brought when morning sun,
With earliest beam, illumined for thee
  The path to immortality;
Thy blessing—bringing labor o'er
  Through faith in One who's gone before,
Thy rest is sweet, blest and complete.

It is interesting to note that this pioneer woman in medicine was the grandmother of our valued contributor, Dr. Wm. Seaman Bainbridge.

The International Artificial Pneumothorax Society.—This society was originally established as a bond of union between medical men interested in artificial pneumothorax all over the world. Now that this treatment has received general recognition, the society has modified its program, say the "Lancet," limiting its functions to that of a central exchange, so as to enable its members to direct their patients, when traveling abroad, to fellow members and experts in this highly technical treatment. In the past patients, who traveled afar and who required refills without the inconveniences of returning home for this purpose, have often experienced difficulties in finding practitioners expert in this treatment. Professor Carpi, of Lugano, Switzerland, is secretary of the society.

Honest Party Representative and an understanding supporter of the special interests of women is Mrs. Harriet Taylor Upton, who declared: "One of the greatest concerns President Harding has is justice toward women. The plan for a new department with a woman at the head is just as strong as it ever was. It may not come to pass immediately, but every time that President Harding sees me he reasserts his intentions to see that such a department is created."

A Woman Suffrage Association Formed in Japan.—We have celebrated so many suffrage victories that it is perhaps a little difficult for some of us to realize that there are still countries where women are not only unenfranchised, but where there is no Woman Suffrage Association. Japan was lately of that number, but happily she is so no longer; and the rejoicings of headquarters over the formation of a Japanese Woman Suffrage Association is great.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by

THE MEDICAL WOMAN'S JOURNAL

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Subscriptions:

Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.— Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

OPPORTUNITIES FOR MEDICAL WOMEN SIXTY-FIVE YEARS AGO—AND NOW

"I refuse to see any woman who has so unsexed herself as to study medicine," said a minister of the Gospel sixty years ago. Not only in the life and work of Cleora Seaman, M.D., so charmingly narrated by her daughter in this issue, but also in the lives of medical women in general is found the refutation of the charge that the study and practice of medicine has power to unsex a woman. On the contrary, in Dr. Seaman sixty years ago, and in the long line of medical women who have succeeded her, the practice of medicine by women has proved to be an outlet for a deep and lofty altruism sadly needed by this great world of ours.

Although Dr. Seaman had known the joy of wifehood and motherhood, her instinctive love of medical study and her desire to relieve human suffering led her quite late in life and under great difficulties into the field of medicine.

It is a recognized fact that the most successful physicians and surgeons, both men and women, have been led to take up the study of medicine by an inward **urge** they scarcely understood.

When we compare the opportunities for the study of medicine by women today with those of sixty years ago, we realize that there is a recognized demand for the services of educated medical women. The world war has demonstrated the ability of women physicians to do constructive work, to surmount difficulties, and by skill and tact to win the respect and confidence of the people of other lands.

The American Women's Hospitals in France during the war and since its close in Serbia and Armenia have done a work for humanity that can never be forgotten. To hundreds of blind eyes sight has been restored by skillful surgery. Thousands have been and are being cared for in hospitals and dispensaries in Serbia by American women physicians, and numbers of little children suffering from the results of war have become strong and happy through patient and intelligent care.

It certainly is a "far cry" from the time of Doctors Elizabeth and Emily Blackwell, Dr. Cleora Seaman and other courageous women pioneers in medical study to the present time, with its large opportunities and proportionately great responsibilities.

ANNUAL MEETING OF MEDICAL WOMEN'S NATIONAL ASS'N

Boston, June 10-11th

Arrangements for the annual meeting of the National Association are being made as rapidly as possible by the committee in charge. Headquarters of the M. W. N. A. will be at 85 Newbury Street. The meetings will be held at the New England Women's Club, 585 Boylston Street, at Copley Square.

Reservations for ninety are available in the houses of the Emerson School of Oratory at the following addresses: 401 Beacon St.; 203 and 324 Commonwealth Ave.; 85 Newbury St., and 1636 Massachusetts Ave. The rooms are comfortable and airy, with bath-room adjacent. Our members will be the only guests in the houses, and so we shall have our own "house parties." Rooms are for one, two or three persons, at the rate of $2 per night per person.

If enough guests register as desiring breakfasts, the staff will be retained and breakfasts served at 50c each.

Dinner on Saturday evening, June 11th, at the Hotel Vendome, $3.50 per cover.

Members wishing to avail themselves of

Digitized by Google

the above accommodations should address as soon as possible: Dr. Edith Hale Swift, 110 Bay State Road, Boston, Mass.

State room desired, with preference for single or double room; breakfast desired; place at dinner on June 11th.

If these rooms are quickly taken up, others can be secured at a greater distance from the center, or at hotels, through the regular A. M. A. channels, provided reservations are made promptly. The committee can not guarantee more than the above.

The rooms reserved are in the immediate vicinty of the A. M. A. headquarters. Program and further information will be given in the April number. Make your reservations at once.

DR. ANNA FOREST ROWE

Established First Hospital for Women and Children in Brooklyn

Dr. Anna Forest Rowe, of Brooklyn, who died last fall, was one of the pioneer women in medicine, and was born in old New York. She was in her sixty-third year. She founded the first hospital for women and children in Brooklyn, and during its existence and in her private practice she treated, personally, more than 15,000 women and children and performed over 340 surgical operations.

Dr. Rowe graduated in 1880 at the Woman's Medical College of the New York Infirmary for Women and Children, established by Drs. Emily and Elizabeth Blackwell as the first medical school for women. There she served in the dispensary and infirmary with such a personally self-sacrificing devotion as to attract the attention of the eminent doctors who attended at the infirmary—so much so that, when she established her own hospital in Brooklyn, she was in personal touch with the great surgeons of New York and Brooklyn—Alexander Skene, John Byrne, George R. Fowler, Daniel Stimson, and many others. They pronounced her a natural surgeon, possessing remarkable skill in diagnosis.

Dr. Rowe wore herself out by service, and in 1892 it was necessary to remove her from it almost by force. This was accomplished by a special act of the Legislature in that year dissolving her hospital. She was among the first women to be admitted to membership in the Kings County Medical Society and in that of New York State, and for her personal qualities and exceptional professional ability was held in the highest esteem by the medical profession of New York and Brooklyn. The name of the hospital founded by her was the Lucretia Mott Dispensary and Infirmary.

Upon the dissolution of her hospital the property interests in it were transferred at her request to her alma mater, establishing in the New York Infirmary for Women and Children two permanently and generously endowed bed in the names, chosen by her as memorials, of "Lucretia Mott" and "Emily Blackwell."

On October 16th a woman was appointed in the foreign service of the Bureau of Foreign and Domestic Commerce for the first time in its history. The honor goes to Miss A. Viola Smith, a resident of Los Angeles, Cal. She will assist in the promotion of American trade in the capacity of Clerk to the American Trade Commissioner at Pekin, China. This appointment was followed within the next two weeks by the appointment of Miss Estelle Feuille to the important position of Clerk to the American Commercial Attache at Madrid, Spain. Miss Feuille hails from Austin, Tex. In justice to the Bureau it should be made clear that the lack of women in its foreign service has not been due to the existence of an adverse employment policy. The fact that women are now entering the field is simply another startling example of the awakened American interest in export possibilities by all classes of its citizens.

RESOLUTIONS ON THE DEATH OF DR. EVA HELEN KNIGHT

The Women's Medical Association of New York City has learned with sincere sorrow of the death of Dr. Eva Helen Knight.

In the death of Dr. Knight this Association and the medical profession have lost a confrere who enjoyed the respect and affection of all who were privileged to know her.

Through her long years of public medical service, first as physician to the Board of Health, and later as physician to the Board of Education she was a real force in promoting the health of the teachers and children of the city of New York. Dr. Knight's work in this field was untiring, and she brought to it, in addition to her thorough professional training, a sprightliness of personality and loyal comradeship that made her trusted and loved by her medical associates, her patients and the teachers and pupils of the city.

In Dr. Knight's death this Association and the medical profession have suffered a great loss, and it is but fitting that we record the affection and esteem which we felt for her by spreading this resolution on our minutes, and sending a copy to her family and to the medical journals.

EMILY LEWI, Chairman,
ANGENETTE PARRY,
FRANCES COHEN.

Digitized by Google

Woman's Conference in India Passes Suffrage Resolution.—A Woman's Conference, held in the Senate Hall, Madras, on December 29th, under the presidency of Mrs. Sirnavasa Iyenger, passed a number of resolutions affecting women's interests, such as compulsory education for girls at the same time and to the same degree as boys; the necessity of the establishment of more medical colleges for women and more hospitals for nurses in training; removal of disqualification of sex from public franchise and eligibility for nominaton to publc bodies; and development and organization of infant and child welfare in all parts of India.

During Convalescence

During convalescence from severe winter illness, such as pneumonia, influenza and bronchitis, the need for an active reconstructive is one of the pointed indications.

For the purpose cod liver oil, provided a palatable and easily assimilated preparation is chosen, is of paramount value. Its selective influence upon diseased pulmonary and bronchial tissues is so well known that it seems unnecessary to discuss its value in the convalescence of pneumonia and kindred diseases.

But many patients can not tolerate the plain oil or emulsions of it for any length of time, and it becomes necessary to make use of a palatable product. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) by reason of its palatability is the cod liver oil preparation to be chosen in such cases. Not only is it palatable, but it also is effective, containing, as it does, the essential properties of the plain oil. Every benefit of the plain oil may be expected from its administration.

Polyvalent Stock Vaccines

As introducers of mixed polyvalent stock bacterial vaccine to the medical profession, and as pioneers in their therapeutic application, we feel that we can speak with authority.

For many years we have contended that toxic offending organisms causing infections retard and inhibit immuno production. Not theory, but substantial clinical experience, reaffirms this truth.

Dead devitalized germs are better antigens than the live organisms causing the infection, and produce immune bodies more rapidly.

Prophylactic immunization demonstrates this truth, and therapeutic inoculations with Sherman's polyvalent mixed vaccines is also doing so in acute and chronic infections.

A more adequate and rapid immunity can be established with polyvalent vaccines than from an infection itself. Sherman's Polyvalent Vaccines rapidly stimulate the metabolism and defense of the body with a resultant prompt recovery in general acute infections.

Therapeutic interpretations must rest on clinical experience.

Any information or data on request by physicians will be complied with promptly.

Laboratories of G. H. Sherman, M.D., Detroit, Mich.

"Imagination is a Great Thing; it Can Make a Flea Happy on the Hide of a Stuffed Dog."

But it does not require imagination to realize the practical and peculiar advantages possessed by

ALKALOL

A clinical test is sufficient and convincing.

Because **ALKALOL** is made to meet the physiological requirements of the conditions in which it is indicated.

Correct Salinity, Proper Alkalinity, Rich in Physiologically needed Salts, Hypotonic, Soothing, Healing, Efficient, Economical.

ALKALOL FOR IRRITATION OR INFLAMMATION OF MUCOUS MEMBRANES secures action and effect not procurable by any other means.

It tones instead of relaxing tissues, restores circulatory balance instead of overstimulating, feeds the cells instead of depleting them, normalizes secretion instead of provoking catarrh.

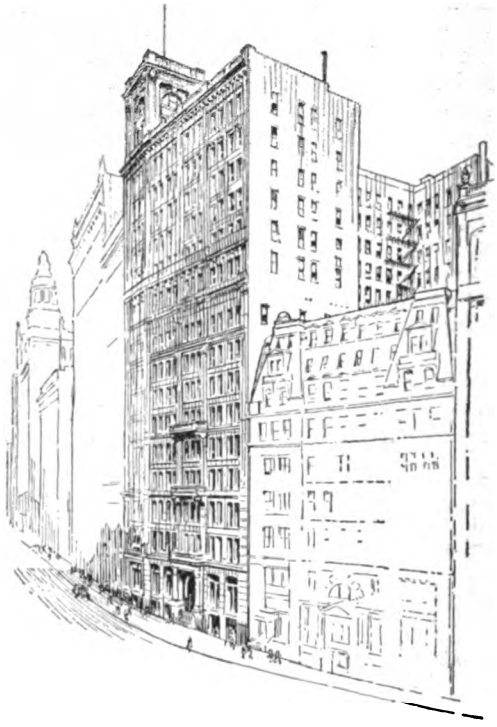
Test **ALKALOL in Eye, Ear, Nose, Throat, Urethra, Vagina, Rectum, Bladder.**

Try ALKALOL on the skin or give it internally. Judge by results.

Sample and literature if desired.

THE ALKALOL CO. Taunton, Mass.

Digitized by Google



Petroleum Headquarters

"26 Broadway" has always been headquarters for authoritative information regarding the production, refining and distribution of petroleum products, not only in this country, but all over the world.

Petroleum headquarters is justly proud of Nujol. It has been pronounced by medical authorities and petroleum experts to be the finest Liquid Petrolatum that it has been possible to manufacture in any country up to date.

The viscosity of Nujol was determined after exhaustive research and clinical test, in which the consistencies tried ranged from a waterlike liquid to a jelly.

Sample and authoritative literature dealing with the general and special uses of Nujol will be sent gratis. See coupon below.

Nujol

Nujol Laboratories, Standard Oil Co. (New Jersey), Room 760, 44 Beaver Street, New York
Please send booklets marked.

☐ "IN GENERAL PRACTICE" ☐ "IN WOMEN AND CHILDREN"
☐ "A SURGICAL ASSISTANT" ☐ ALSO SAMPLE

Name..... Address.....

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 4

April, 1921

$3 per year in advance
Single Copies, 25 cents

PROPHYLAXIS AND VENEREAL DISEASE

By Dr. MARY GORDON (London)

A Paper Read Before the International Conference of Medical Women, New York

LADIES and gentlemen, I must begin by making an apology to you. On the old program I was put down for another subject, which I found, when I got there, was practically what we in England call notification of venereal disease. We have no such thing in our country, but I find that you have it. Therefore I could only have engaged in an academic debate against people who could set me right, and I felt my position would be a poor one, and you would be so uninterested in anything I had to say that I asked the committee to be kind enough to allow me to change the subject. They saw my point and allowed me to take the question of prophylaxis instead.

Prophylaxis is a question that concerns us all, both in America and England. People are just proposing to us now that we should adopt it for our general population. It is an extremely practical question about which every one of us, both as citizens and as doctors, have to make up our minds, and I am really very much pleased that I had no time to get in my paper the other day. For one thing I should not like to have followed so closely after Dr. Hooker's very brilliant paper on the same subject, and for another thing I am so glad to be speaking here to a number of people who are not doctors, but who are citizens, and who, I am sure, will appreciate equally with my doctor friends what I have got to say. (Applause.)

Measures directed against the spread of venereal disease may be of many varieties. They may be scientific and up to date—that is, in harmony with the best and most modern theories—or the reverse. They may contribute to the establishment of public health—or they may not. They may advance the good of the world or retard it.

I am only going to speak today of two well-known prophylactic measures which are really of the same order. Both measures have been tried in the various armies during the war. Both were, I believe, recommended by scientific men who had found them of value in their personal experience in preventing disease. The war is over now, and the reason I am drawing attention to them here is, that suggestions have been made that at any rate one of them should be introduced as a public measure for the protection of the civil population from disease.

I do not think that, with this audience, I need go into detail as to the methods that were employed and that are now recommended again. They are probably familiar to all of you.

I will, however, remind you that the Prophylactic Packet (called in at least one army "The Blue Light Outfit") consisted of various medicaments and appliances which were provided for soldiers to use before exposure to infection, and also, in some cases, after exposure to infection.

"Early Preventive Treatment" was given after exposure to infection by skilled assistants wherever this was possible. It consisted in thorough cleansing and disinfecting with various antiseptics.

In neither case was there a question of disease being actually present. Both treatments were directed to removing the possible consequences of a dangerous act of sexual intercourse by preventing the development of disease.

Neither of these forms of treatment could lay claim to being new. Many forms of disinfection and attempts at protection have been known to prostitutes and their clients ever since disinfectants were invented. Many prostitutes use them, chiefly at the request of their clients, but they do not think much of them, and they know that they themselves are not really protected by them. They are afraid of them, especially of preparations of mercury, which are sometimes poisonous to

Digitized by Google

them. I have heard that in America the idea of the "Prophylactic Packet" was not popular. It was not popular in England, either. In England some of the people who had most to say about it were the soldiers themselves, many of whom felt much insulted by its distribution in the army, and told their women-kind about it when they came home on leave. Many also testified to the harm that had come to men and boys in the army through the suggestions supplied to them by various kinds of prophylaxis.

An official inquiry was held in England and a report was presented to the Ministry of Health last August shortly before I left home. Memoranda (incorporated in the report) were furnished to the Committee of Inquiry by the armies of Great Britain, Australia, Canada, New Zealand and America.

Put very briefly indeed, the following were the main findings of the Departmental Committee:

That the issue of prophylactic packets tends to give rise to a false sense of security, and thus to encourage the taking of risks which would not otherwise be incurred. That, in certain circumstances, the spread of disease might be increased.

That, in spite of the most careful instruction, the packets were not used as intended. They were used by the individual for self-treatment and delayed diagnosis and the application of proper treatment at the time when it was of the first importance.

That the most carefully organized packet system (such as exists now in the army—a system which would be unattainable in the civil community) has not produced such a general reduction in the incidence of venereal disease as to counteract the disadvantages mentioned.

The committee further expressed the view of all the representatives of the different departments who assisted them "that the true safeguard against these diseases is individual continence and a high standard of moral life." (Applause.)

The committee also stated that the volume of evidence in favor of the system was too small and too exceptional, and the instances of failure even under exceptional circumstances too numerous and the difficulties of administration too great to justify an official application of the system to civil life.

Therefore we see that they officially relegated the prophylactic packet to the hades whence it came, although they had no antidote to offer for the trail of moral poison it had left behind.

Of Early Preventive Treatment the committee say they "are satisfied that, while certain drugs and medical preparations may be relied on to remove or destroy the infection of venereal disease if applied by skilled attendants very shortly after exposure, such results can not be secured if these drugs and preparations are used unskilfully or too long a time after exposure."

They say no more, but leave this matter still in the air. You will remark, however, that in at least one army (the Australian) the two treatments were both thoroughly given, so that even if the "prophylactic packet" failed "Early Preventive Treatment" might have succeeded, and the same figures, of course, applied to both. It was well tried.

At a "Blue Light depot" in London, in twenty-nine months, 222,882 attendances were made for skilled disinfection, and at eighteen other centers 4,623 weekly average attendances were made. Yet the rate of admissions to the hospitals hardly fell at all, and one out of every six or seven men were admitted each year during that time.*

Now this is the treatment that is being advocated for our civil population in various countries. It has been suggested that centers for disinfection after exposure should be established and should be kept open day and night. I have been shown a plan of one of these to be attached to a public lavatory. They are also to be attached to clinics or hospitals where bona fide sick and diseased people come for treatment.

Who would come for this early preventive treatment? Naturally the people who have been indulging in sexual intercourse which they know or suspect to be dangerous. The suggestion is that public funds are to be spent on them, practically to make their pleasures safe for them. More continent and socially more valuable men are to be taxed to secure their immunity

---

*See p. 5 Report of the Interdepartmental Committee on Infectious Diseases in connection with Demobilization, 1919, on "Prophylaxis against Venereal Disease."

"The system organized by the Australian Forces was most thorough. Men were almost individually instructed, and packets were handed with full directions to men going on leave. Theoretically it should have reduced the venereal rate to negligible proportions."

Digitized by Google

from the results of their unhygienic conduct. "Early Preventive Treatment" is the concomitant of incontinence. (Applause.)

You are all citizens and taxpayers. Do you really want to pay for that? You are doctors. Are you willing to assist in promoting or working this scheme—as an experiment—for that is what it still is?

TABLE C (a).

Austrian Forces in United Kingdom.	Admissions to Hospital. Ratios per 1,000 per annum.	Approximate number of men infected.
September 30, 1917..	167	1 in nearly 6
December 31, 1917...	150	1 in 6½—7
March 31, 1918.....	176	1 in 5½—6
June 30, 1918.....	133	1 in 7½
September 30, 1918..	132	1 in 7½
December 31, 1918...	147	1 in 6½—7

In the 18 months 12,844 men were admitted to hospital.

I suppose that no one here has had a bigger opportunity than I have had of doing something to promote this form of prophylaxis. Every year I converse with hundreds of girls and women prisoners who are given to the most casual and promiscuous sexual intercourse. I am not one of their gaolers, but I look after their interests, and as a rule they trust and listen to me. Among them are many who are not wholly reckless and degraded, or who, if they are, are not averse to taking up new "stunts" as they call them. Men of all classes resort to these girls and women. I have every chance of preaching the gospel of "Early Preventive Treatment" to them, with the practical certainty that my words will reach some of their male associates, and will not be without some effect. I have also the power to teach and influence the small army of prison officials and charitable people, who, all over the country, try to help and rescue these women.

And I do not use my power.

I might possibly prevent these girls from contracting syphilis, and I don't try? I don't, because I think I might be doing more harm than syphilis does. (Applause.)

See how I am situated. I have had to put to myself these propositions and find the answers for myself.

First of all, venereal disease is a set of symptoms which result from misdirected sexual action. The cause of its spread is rarely accident. It is usually due to bad sexual habits, or the want of such self-control as may reasonably be expected of men and women. My duty as a doctor, in preventing ill health, **is to keep this before them.**

I have been urged to regard the fact that the world is full of elementary, ignorant, reckless people, and that, since other people suffer from their conduct, we can not wait until they acquire moral sense and self-control, but must take any steps we can to mitigate the dreadful state of things we are up against. This is a counsel of pure panic, and it is of no use to any one from any point of view. (Applause.) I am not prepared to take any steps out of panic I want to know exactly what I am doing. Again, I have been urged to tell poor humanity that venereal disease is "just like any other disease" (whatever that may mean), and at any rate that it should be treated openly as though no shame were attached to it. I can not tell my patient that no shame attaches to it. Shame is a most ancient and complex product of evolution, experience and the grace of God. It is also under another aspect the "feeling of inferiority" which other speakers have referred to, which is the direct result of the dislocation in the individual life. We did not put it there, and it only goes when the dislocation goes. We can not otherwise take it away. I can not, therefore, tell these people that I do not blame them, and that there are no moral issues connected with their loss of control. Otherwise why should they not do as they like? I am bound to tell them that they must not contract bad sexual habits and must not indulge them. I can not admit that people whose habits are inherently unhygienic (and all casual intercourse is this) and who deliberately choose to incur risks to themselves and others should be able to command public or private assistance in order to avoid the consequences of their acts.

I can not admit that they need or deserve consideration, and, practically, special provision for the lusts of the flesh, because:

(a) If I assist in making such provision, I assist in confounding the moral sense of the community and keeping men in the bondage from which I desire they should be free.

(b) I should also lead ignorant people and those whose lives are already full of sexual difficulty to believe that unhygienic conduct could be made safe.

(c) If I tried to make it safe for them how could I tell them it was wrong? They would not believe me.

Digitized by Google

(d) If I were to give them the impression that it is safe, or even less risky, I should almost certainly increase the practices which cause disease, and thereby increase the incidence of disease itself.

(e) I can not pretend to protect the innocent victims of disease if I help to increase its general incidence.

(f) If the State which governs me disregards its own ideals and encourages the protection of unhygienic and anti-social acts, and becomes the official stakeholder between virtue and vice, it denies its functions and ceases to have a coherence on which I can rely, or in which I can believe. As a doctor I must not advise or encourage the governing body to act in this way. (Applause.)

Let me use a handy illustration.

Supposing a governing body were to say to a man tempted to drink too much: "We have given you every moral, and religious, and social, and hygienic reason why you should be sober. In addition to all the misery which you will make if you are not, your country wants your work. To be efficient you must turn up in the morning at your work. Therefore, if, in spite of all we say, you will persist in getting drunk, when you leave your drink-shop go to the 'Blue Light' shop at the end of the street, where you will get an emetic, or a wash-out, or a pick-me-up and be put straight again." Now you don't like that idea well enough to carry it out. I don't notice that it was the way you went to work over your drink problem in America. You would have called it not only disgusting, but futile. But after all it would only have been "Early Preventive Treatment." No poison absorbed. No man going home to beat his children, no rows, nor scandal, nor arrests. All-round saving of public money. All-round increase of efficiency. Recommended and practiced since the days of the Roman Empire. Still has the approval of men about town! Why not do it? We can only reply that we repudiate the idea that it **could** succeed in any way worthy of calling success. Still it was the method we chose, both here and in England, for dealing with men whom we could not influence in any other way in the matter of their sexual want of control. And mind you, people are still toying with the idea of "Early Preventive Treatment" and have not yet sent it to its own place. They are going to ask us all for a decision. Whoever else can remain neutral, we can not. (Applause.)

(g) Again, as a doctor I am bound to consider the well-known effects of suggestion upon people in a condition of imperfect equilibrium. We have had abundant evidence of the effect of this on the young soldier. The young soldier during the war certainly lived in a heated atmosphere of suggestion. He had lectures, he had posters, books, leaflets, he had moving pictures, all on the topic of sex. Wherever he went he was talked to—exhorted. Before he went on leave he was specially paraded and warned, and told to be a man and resist. At the same time he was reminded of the "Blue Light Depot," and the prophylactic packet was thrust upon him. Behind him was the weariness and hardship of his life in the open. Before him, anywhere behind the lines, were regulated houses of prostitution, which offered him wine, supper, a soft bed, women, and possibly disease. A man is not always sexually inclined when he is tired, or when he is drunk, but alcohol makes him highly suggestible. He had the alcohol to take his last defenses. Will any one of us who has ever known any temptation in its hungry, suggestive, insistent form, say that it was commonsense treatment? If we had desired a crop of venereal disease, were we not asking for it in this hothouse cultivation of all that was likely to lead to it? And when the soldier had passed his "Blue Light Depot" and had put the last touch of degradation on himself by so doing, what must have been his "feeling of inferiority" when, as he often did, he found himself diseased? Therefore it is not my business to suggest or to tempt. (Applause.)

(h) Again, I am personally concerned as a doctor and a citizen in not encouraging low and false standards—in not debasing the moral currency. I am out after the whole man and woman. The findings of the newer psychology are with me there. The man who comes to me for "Early Preventive Treatment" is in some measure a sick man. He is one of the "short-circuited" individuals whom Dr. Amsden has so graphically described. By his conduct he is depriving himself of interest in life itself. And I would like to remind you that an individual who has shut himself off from his true needs; who is living, not his natural life, but a life that is largely faute de mieux, with a sexuality that is merely an evacuant of nervous reserves—such an individual lives a life which is in part an atmosphere of phantasy. Even in

Digitized by Google

the brothel there is a pretense of love. And a life of inner phantasy is a life of outer acting. Acting is a picture of a part of life, but it is not life. Your unadapted short-circuited man who is indeed switched off from his own fundamental realities, or who, being aware of them, will not face them, is always an actor. An actor who can not leave his stage is a sick man. He is sick with something much worse than venereal disease. "Early Preventive Treatment" is not his road to cure. If you doubt me, look for a moment at the man as he could be but for this sexual hitch. For, as we have all been saying, men and women can not be satisfied by indulging the mere cravings for physical gratification. They need that fuller and completer satisfaction which includes all their desires, for friendship, companionship, parenthood, citizenship, pride in a clean and respected family and civic life. Casual and temporary unions, where the absorption is purely sexual, dissipate energy, disintegrate and lose natural instincts, and force men and women either to a secret double life, or to declassify and separate themselves from their natural social environment. A man's potential success and honorable career may be irretrievably stultified and hampered by habits of irregular sexual relations with women. Just as he has to outgrow the tricks of his puppyhood, so he has to outgrow this kind of sexuality. The "Early Preventive Treatment Center" holds him to it. If, instead of becoming at a proper age a happy wife and mother, a girl or woman lives the irresponsible life of paramour, mistress or prostitute, her life is mutilated and her finest energies are inhibited or destroyed. The damage done to a woman whose development and whole reproductive cycle is violently thrown out of gear, and whose energies are limited to the simple purposes of sexual congress, is very great. In addition, the cultivation of the sex-instincts, to the exclusion of all natural modifying factors and safeguards, leads to an increase of desire, to exhausting excess, to selfish want of consideration for others, and a woman is the result who could not be more seriously sick if she had venereal disease. These are some of the ills which the establishment of "Early Preventive Centers" will help to bring upon the women of your country.

(i) Out of such material you can not hope to obtain healthy mating. Many evils arise out of the attempt of people who have unfitted themselves for marriage to undertake it. You have jealousy, marital unhappiness, incompatibility (both physical and mental), infidelity, adultery, abortion—all these are the results of the failures of human beings to develop their lives along natural and social lines.

(j) Then again, if you are going to establish "Early Preventive Treatment" you have to consider whether you will also confer on women as well as on men whatever degree of prophylaxis you hope to secure. Ir you decide to do so, you may as well write "Safe Vice and State Sterilization Depot" over the new establishment, for it would be impossible to prevent the treatment from being used for the prevention of pregnancy. You would not like the young generation who are just growing up, and who, you are so bent on educating rightly, to read that title, or even to think in those terms of your "Early Preventive Treatment Center." Yet they assuredly would do so. And if they had nothing to say about our being hypocrites, well—they would be very forbearing.

Here, ladies and gentlemen, you have the row of bars that stop me personally from desiring this prophylaxis. I do not want it at the price. I am old fashioned enough to believe that there is still room for us all in the Garden of Eden, and I put my trust for the boys and girls of the future in intelligent self-direction—every time—and in the filthy disinfecting lavatory, never. (Applause.) This scheme is, therefore, for me a counsel of evil in which I can take no part.

Now I think you are entitled to ask me what I do propose as a remedy for the venereal scourge.

(a) I believe in thorough, sound, scientific treatment of disease freely provided and freely sought and privately given.

(b) I think it important to let all grown people know that as soon as they observe symptoms they should go to a doctor. I believe in doing anything that we find after due consideration to be of value, to educate the young so that they will bring grit and character, reason and conscience to bear on this, as well as on all other problems, for this is the way to liberate men to the enjoyment of that fuller life which is the way to the real conquest of venereal disease. If any young person comes to me in distress over some first sexual mishap, I will refuse him nothing, but will do all I can to save and restore him. But he is a rara avis, and I venture

Digitized by Google

to say that if the Prophylactic Center comes into being, he will become practically extinct. But I will not treat any other person who may come and demand my services while there is no evidence of disease.* I am the friend of all, but I am not a scavenger, nor a mere cleaner-up of careless or vicious persons. That is not what my fine profession is for. I will give no living person information as to any means of avoiding his or her proper human responsibilities. But I will give every person asking for it such advice and information as may enable him to overcome his personal difficulties, and to find for himself a way of living free from harm to others or reproach to himself. (Applause.)

And last of all. If there is any valid basis for the principle which we seem to have established at this Conference that it is our duty to discover a way of life, rather than fresh nostrums and specifics and other moribund devices for securing a healthy people, let us keep that before us. We have had enough of quack remedies. We have been told of all manner of means that were going to prove royal roads to the prevention of disease. The prostitute herself has been called a "high priestess of humanity;" the inscribed prostitute and the regulated house in their turn were a supposed benefit. Prophylaxis was another, punishment was another, and now that all these stand utterly discredited, "Early Preventive Treatment" is to head the bill. I ask you not to believe in any of them, but to believe only in such ways as do not premise the degradation of any man or woman. We have had many bad laws and regulations on this subject all over the world, and all especially hard on women. Do not let us be in a hurry to support more legislation until our way is much more clear. The attitude of "scare" leads us nowhere. Syphilis and gonorrhœa have been here a long time. Do not let us be sidetracked by them, because they are still going to be here after we are all dead. There are worse things in the world. They are not the real disease; they are only symptoms of a real disease which is in ourselves, and once we get down to the root causes, they will go. (Applause.)

Let us be sure also that the way to life is not through the cult of barrenness, impotence and race-suicide, which is the true connotation of "Early Preventive Treatment." These things belong to the blind alley and the dark corner, where we may safely leave them to rot and fertilize a more profitable field of research. (Applause.)

* What is bad for the public is bad for all individuals who make up that public, therefore I am not at liberty to do privately for a fee, or in a Venereal Clinique, what I will not do in an Early Preventive Treatment Center.

"Sanitario Scholastico di Milano" (Public School Work in Milan).—A medical service for school children has existed in Milan for about twenty years. Since 1917 a new and more thorough system has been enforced, of which these are the main features: There is a corps of full-time physicians sufficiently large to provide one physician for each 5,000 pupils, and a corps of visiting nurses. Each child is given a thorough medical examination upon entering school and careful records are made. Treatment is prescribed if needed. The schools are inspected by physicians at least twice a month. School clinics have been established where children are examined after being absent from school for any reason, or in case of illness, and where advice is given to parents. Each spring the children are examined to see if any are in need of special treatment at vacation resorts during the summer. Free hot lunches are served under the physician's direction to needy children. All the special schools for delicate or defective children are under the supervision of the school physician, and all public and private day nurseries and public evening and summer schools.

Emigration of young people, including minors, from Germany is assuming considerable proportions, due to the unfavorable economic conditions in the country. After the freedom and high earnings of war years young people are finding great difficulty in adjusting themselves to the new conditions. Frequently young people still under age intending to emigrate apply for a "certificate of majority" which may be granted by law under certain conditions to persons over eighteen years of age. Instructions were issued by the Government in September, 1920, calling attention to the need of giving sufficient information to those about to leave the country, and asking the authorities to whom a prospective emigrant applies for a certificate of majority to communicate with the emigration bureau as to the situation in the foreign country before making the decision.

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M. D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

THE ROLE OF SURGERY IN THE TREATMENT OF RETROVERSION OF THE UTERUS

THE underlying etiological factor of retroversion of the uterus is atony and relaxation of the uterosacral and cardinal ligaments of Koch. This atony and relaxation may have been produced by subinvolution of the uterus or may have been a congenital condition. Nevertheless, the problem remains to bring back to these ligaments their normal tonicity. The uterosacral ligaments and the muscular portion of the broad ligament known as the cardinal ligament of Koch are the only two supports of the uterus. The folds of peritoneum which pass from the uterus after enveloping it do very little toward actual support. When the tonicity of these two supports of the uterus is lacking, the organ begins to sag and the fundus of the uterus inclines toward the sacrum. The intra-abdominal pressure which is now exerted directly in the axis of the vagina instead of being exerted on the posterior wall of the uterus puts on the weakened ligaments a greater strain. This continued intra-abdominal pressure, added to the increasingly relaxed and overstretched ligament, produces ultimately a more or less complete uterine prolapse. Many of our best gynecologists deny that a retroversion of the uterus is an indication for medical or surgical treatment. They bring forward the argument that 20 percent of women have a retroversion and that many women have retroversion all their lives without suffering any distressing symptoms. These arguments, plausible as they appear, might be applied with as great force to that very common condition—hernia. A large percent of patients with hernia have no symptoms, and only a small number are brought to the operating table for strangulated hernia. These same gynecologists, however, &who do not regard version as pathological will urge the patients with a hernia, though symptomless, to seek a surgical cure as a prevention of possible strangulation.

The essential factor in the cure for retroversion is to restore lost tone to the ligaments which support the uterus in its normal position—namely, the uterosacral and cardinal ligaments of Koch. With normal tone the supporting ligaments should prevent the uterus from the slightest prolapse and maintain it in a position at right angles to the vaginal axis, the intra-abdominal pressure being exerted on the posterior wall of the uterus.

We must never lose sight of two facts —that the uterus in its normal anteverted position is a freely movable organ, which, if displaced, will return to its original position, and that when we cure a retroversion we are preventing a more or less complete prolapse of the uterus with its accompanying cystocele and rectocele, a condition which, when present, is most difficult to deal with.

Elongation of the cervix, with or without hypertrophy, is often mistaken for retroversion or prolapse of the uterus. If the cervix is longer than can be contained in the posterior cul-de-sac, when the uterus is in its normal anteverted position, the elongated cervix will have to find room for itself by pushing downward into the vagina. This will of necessity tip the fundus backward and confine it there. The intra-abdominal pressure will now act in such a way as to bring the cervix farther down the vaginal canal until it may reach the vulva or even protrude. This condition may be suspected by the absence of an accompanying cystocele or rectocele, and positively diagnosed by measuring the length of the cervical canal. The treatment lies not in an op-

Digitized by Google

eration for retroversion, but in the removal of the redundant portion of the cervix; in other words, an amputation of the cervix uteri. A cervical canal of one or one-half inch is sufficiently long even for the child-bearing woman.

The restoration of the relaxed ligaments to normal involves two processes. First, to remove the cause of the lost tone, whatever it may be; and second, to secure for the ligaments which support the uterus complete freedom from function for a sufficient time to allow them to regain their tone. The first object may necessitate a curettage for the subinvolution. A myomectomy for small myomata, repair of the cervix to remove hypertrophied tissue, perineorrhaphy to restore and strengthen the pelvic floor, oöphorectomy for small ovarian cysts or salpingectomy for hydrosalpinx. The second object involves providing support for the uterus in some other manner than by the uterosacral and cardinal ligaments of Koch. This may be done temporarily by making use of the round ligaments or creating false ligaments, such as are produced in the operation known as suspension of the uterus. In using the round ligament for support, there are almost as many different operations as there are gynecologists of note. Why such a variety of operations is difficult to explain, when all of them, if properly done, will result in restoring the uterus to its normal condition. The chief point of difference in these operations is in the sequelæ. In fact, this difference is of enough importance to become a basis of a choice of operation. Of all the operations that have been devised the original operation of Alexander, commonly known as the Alexander-Adams, or external Alexander, is freest from sequelæ.

Of the operations devised subsequently, the Barrett operation probably more nearly approaches the original Alexander, and would be almost devoid of sequelæ if the transplanted loops of the round ligaments were first stripped of their peritoneal coat before being passed through the abdominal wall. Without this precaution there is a danger of a most annoying sequelæ—that of a hernia of the urinary bladder. The Webster-Baldy operation represents that type which uses the poorer thin part of the ligament for suspending the uterus and produces unnecessary adhesions by the fantastic arrangement of the uterine end of the round ligament. In most of the round ligament operations the originator lays stress on the arrangement of the round ligament rather than on securing a strong, taut ligament on which to place all the weight of the uterus for a period of at least three months. The false ligament of ventral suspension in those cases where the tubes have been removed or the patients sterilized will provide perfect temporary support to the uterus and freedom from function to the ligaments that normally support it.

To most successfully treat retroversion by surgery, the round ligaments must be shortened and sutured securely enough to provide perfect support for the uterus for at least three months. An operation must be chosen which will leave no or few pathological sequelæ, and of most importance the round ligaments must be so disposed of that they will be able to gradually lengthen until after a period of three months or more they will be lax enough to allow the normal supports of the uterus to again resume their function. This is materially aided by instructing the patient to undertake strenuous exercise during the first three months following the operation—climbing stairs, swimming, golfing, riding horseback, scrubbing floors, lifting heavy furniture—in short, all forms of exercise will assist in bringing the uterus down to its normal plane in the pelvis, where it will rest again on the uterosacral and cardinal ligaments of Koch. Any operator who attempts by surgery to suture the uterus into a normal position, and at the same time provide perfect movability of the organ, will surely be disappointed. The functions of the operations for retroversion should, like the function of the plaster cast, be to secure rest and immovability for a definite short period of time. At the end of this period the immediate operative results must, like a plaster cast, be gotten rid of to give room for the normal conditions which they have been the means of restoring.

The patient will not enjoy perfect comfort during the first three or six months following a successful Alexander operation. If an examination is made soon after the operation for retroversion, the uterus will be found to be drawn up even into the abdominal cavity, quite immobilized, and its long axis will be nearly in the axis of the vaginal canal. At the end of six months the same patient, if examined, should be found to have a freely movable uterus lying in the normal ante-

Digitized by Google

verted position in the superior plane of the pelvis at or nearly at right angles to the axis of the vagina. This normal condition which we find at the end of six months has been brought about by the constant strain on the round ligaments or adhesive bands which have been artificially produced to support the uterus. The distended bladder has pushed the uterus backward, the overloaded sigmoid has pushed it forward; every breath, cough, or straining at stool has urged the uterus downward; and if the ligaments have not been too securely sutured to the body of the uterus or to the recti muscles, the ligaments will gradually elongate and break away from their artificial mooring until sufficient length will be released to allow of perfect mobility and allow the uterus to assume a normal position. If, however, at the end of one year, the uterus is still in the position in which it was put by the operation, much can be done toward making the patient comfortable by putting her under an anesthetic, seizing the cervix with a strong volsella and drawing it down to or even outside of the vulva, then pushing it as high as possible backward and forward until movability has been effected. Where the round ligaments have been passed through the broad ligament onto the uterus, or where they have been folded and sutured onto the body of the uterus, or blended with the recti muscles, satisfactory results will not easily be brought about; but if the technic has been simple and the operation has been followed by plenty of exercise on the part of the patient, there is no need of fear of relapse or of complications at a subsequent delivery.

When retroversion is diagnosed the patient can be promised a permanent cure by an operation which has no mortality. Where failure has resulted, it has undoubtedly been due to a misconception on the part of the surgeon of the underlying principle on which the treatment should be based. This principle is to give a rest to the ligaments that support the uterus in its normal condition by making the round ligaments or false ligaments produced by adhesions support the uterus temporarily until the true ligaments can through rest regain their tone.

THE CARE OF THE OBSTETRICAL PATIENT DURING LABOR

THE care of the obstetrical patient may be divided into (1) prenatal; (2) during labor; (3) during the delivery; (4) during the puerperium; (5) "follow-up." At the present time prenatal care is being thoroughly exploited. Care during the puerperium has been scientifically carried out for some time. Follow-up work is done more in connection with dispensary service than in private practice. Care during delivery is and always has been considered the most essential part of obstetrical practice, but care during labor—the subject to be considered—has been and still is relegated to a trained nurse, a relative or ofttimes to the patient herself. This lack of care during labor is most forcibly brought out when the obstetrician inquires whether twilight sleep does not require more of the doctor's time than when no anesthetic is used.

It can not be denied that the usual routine followed by the majority of obstetricians is to see the patient when being called to a case, and examine to ascertain if labor has begun, and if there are any abnormalities. An examination revealing little or no dilatation of the cervix and the presentation normal, orders are given to the &nurse or intern, if the patient is in the hospital, or to the patient herself, if she is at home, to be notified when the pains produce a bearing-down sensation. The obstetrician leaves his patient at this stage to return when, in the judgment of the patient's companion, nurse or friend, only a short time will elapse before the delivery of the child.

The nurse or patient is often very nervous lest the doctor will be called too soon and be obliged to go away, to be called again, or what would especially annoy the obstetrician—to be called so late that it would not be possible to collect the obstetrical fee for delivering the child. In a specific case the intern was instructed to keep back the head until the doctir arrived, and did so so successfully that it was impossible to resuscitate the child after the long delay on the perineum.

What should be the care of the patient during labor? First, a rectal examination at least every two hours to determine the progress of labor. Second, examination of the fetal heart at intervals

Digitized by Google

not longer than two hours to determine the condition of the child, Third, an examination of the heart and determination of the blood pressure of the mother often enough to learn the effect of the labor on her. Fourth, expectant observation for abnormal conditions. In the management of the first stage of labor a diagnosis of the presentation and position of the child is of greatest importance. External examination, rectal examination and a vaginal examination often leave the obstetrician in doubt. In such a case the rectal and external examination should be made every fifteen minutes until the doubt is removed. If the blood pressure of the mother is low, it will not be necessary to take it again during the labor, but the maternal pulse should be recorded every two hours. If the blood pressure of the mother is above 140, the blood pressure should be taken every four hours during labor, and oftener if the pulse gives indication of an increase. The sole evidence of the condition of the child before birth is the fetal heart tone. Many a life might be saved if the systematic examination and recording of the fetal heart was more often resorted to.

Before an operation requiring an anesthetic an examination of the heart and lungs is considered necessary, but a shockingly large percent of women go through labor without ever having heart or lungs investigated. Abnormal conditions, especially toxemias, are suggested by the disturbance of the nervous or digestive systems, and a sharp lookout for such signs should at all times be maintained. During the first stage of labor we may have hemorrhage produced by placental implantation over the cervix, rupture of the uterus or premature separation of the placenta. We may have early rupture of the membranes, with resulting prolapse of the cord. Edema of the lungs as the first suggestion of toxemia, eclampsia with no showing in the previous examined urine—all of these conditions may occur in the first stage with a normal cephalic presentation of the child. To these conditions may be added nonflexion of the head, transverse arrest and rotation of the occiput posterior. A failure to make a diagnosis of the presentation and position early in labor may result in impacted mentoposterior, impacted shoulder in a transverse presentation, impacted brow, or a precipitate breech with delayed delivery of the head. When the head is on the perineum and the child is about to be delivered, it is demonstrated that the patient could have dispensed with the services of an obstetrician; but during the first stage of labor much may be done to prevent some of the conditions which result disastrously to the mother or child. In addition to the watchfulness for untoward symptoms, much can be done during the first stage to prevent exhaustion, promote elimination, assist rotation of the head, control too rapid loss of liquor amnia and consequent prolapse of the cord, and to help the inertia produced by diastasis of the recti muscles.

Scopolamin-morphin anesthesia during the first stage will prevent exhaustion by relieving pain and inducing sleep, so that the patient will lie in bed during the greater part of labor. Elimination may be promoted by the giving of a sweat during the first stage or by colonic flushings. Position will often assist in the rotation of the head and control the rapid loss of amniotic fluid where the membranes have ruptured early. When the labor is initiated by rupture of the membranes, the patient should be kept off her feet, to preserve as much of the fluid as possible behind the child; and in case the cord prolapses, the knee-chest position is of advantage. If diastasis of the recti muscles is the cause of a prolonged labor, a tight abdominal binder may correct this condition in a marvelous manner. Prevention of an edematous anterior lip of the cervix being caught between the head and symphysis is worthy of attention. Flexion in an occipital presentation and extension in a face presentation are necessary for the normal progress of labor. For the cord that can not be replaced version must be performed at once, and for the transverse presentation version can not be resorted to too soon. A brow presentation may be converted into a face or occiput if seen early enough, otherwise version must be employed before impaction has done harm.

If we have a breech, we must be ready to deliver the child with the back toward the symphysis and prevent too long a delay in the delivery of the after-coming head. It is in the first stage of labor that the largest number of pathological conditions are noted, and will be dealt with much more successfully if the obstetrician is in attendance at the patient's bedside during the labor. There is little doubt but that the administration of an anesthetic during the first stage of labor will accomplish a two-fold purpose and could be recommended for this reason if for none other.

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association
Headquarters, 637 Madison Ave., New York

REPORT OF THE ARMENIAN SERVICE OF THE AMERICAN WOMEN'S HOSPITALS

By ESTHER LOVEJOY, M.D., Chairman

"THE best-laid schemes o' mice an' men gang aft agley." This also applies to the plans of women and relief organizations, and is especially true in these days of changing boundaries and governments in some parts of Europe. The American Women's Hospitals and the Near East Relief Committee had decided upon a co-operative plan of relief work. A hospital and dispensary center was to have been established at Trebizond, in the new Republic of Armenia, on the southeastern shore of the Black Sea.

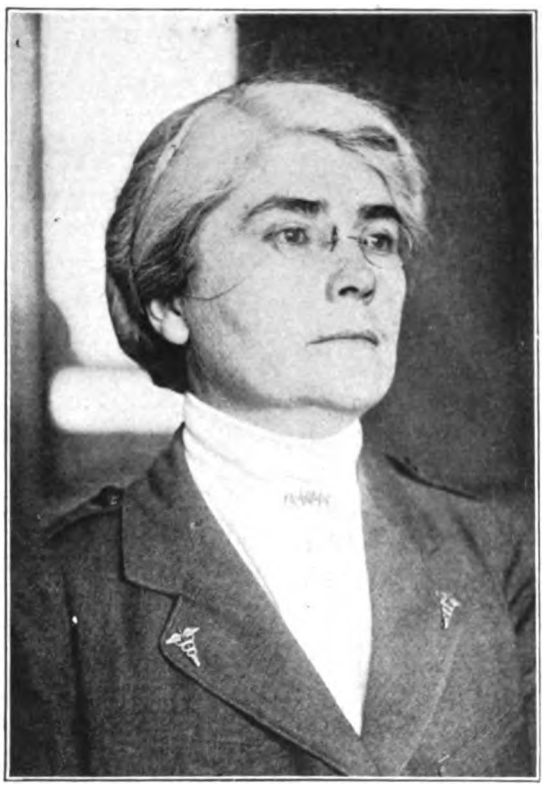
The Republic of Armenia! There was inspiration in the thought. Our personnel was selected, equipped and sailed for the promised land, but before they got there Wrangel's Army had been defeated, and thousands of refugees were pouring into Constantinople or anchored off shore in the very ships in which they had escaped. The refuge ships became death traps, funeral barges from which the bodies of those who died of pestilence and starvation were cast into the sea.

By the end of last year the Bolshevists were occupying Armenia and Azerbaijan,

After Six Weeks' Feeding!
The condition of this patient when taken to hospital is beyond imagination.

Digitized by Google

and it looked as though Trotsky might come marching through Georgia at any time. The Turkish Nationalists were also troublesome, and for these reasons the Trebizond plans were abandoned and a hospital and dispensary service was established at Ismid at the head of the Gulf



DR. MABEL ELLIOTT
From Benton Harbor, Mich.
Now at Ismid, Armenia.

of Ismid, an arm of the Sea of Marmora. Ismid was the old Necomedia of Byzantine days. It was the capital and metropolis of that country for many centuries.

From the beginning of the relief work in Armenia the medical women serving with the Near East Relief Committee have been selected and equipped by the American Women's Hospitals. During the year 1919-20 Dr. Elsie R. Mitchell and Dr. Clara Williams were financed by the American Women's Hospitals with the help of the Women's Christian Temperance Union. They were stationed in the Caucasus at a town called Etchmiadzin and cared for a large number of orphan children. To reach this place it was necessary to pass through Batum, Tiflis and Erivan, under the shadow of Mt. Ararat where Noah landed in the ark. This territory is now held by the Soviet Armenians.

Dr. Gladys Carr, of Brookline, Mass., Dr. Caroline Rosenberg, Dr. Mabel E. Elliott, of Benton Harbor, Mich., Dr. Elfie Graff and Dr. Ruth Parmelee sailed from New York in the early part of 1919. Dr. Parmelee is the daughter of missionaries and was born at Trebizond. She and

Digitized by Google

Dr. Graff are still in service with the Near East Relief Committee.

Dr. Emily Clark MacLeod has distinguished herself in the service of the American Women's Hospitals. During 1919 she represented the American Women's Hospitals in the Massachusetts campaign and raised a large amount of money which helped to establish the work in Serbia, which has been so successful. She was equipped by the American Women's Hospitals, and reporting for duty with the Near East Relief Committee at Constantinople in August, 1919, was assigned to Malatia, where she took charge of a general hospital, dispensary and orphanage. Her success can be fairly estimated by the fact that a thousand people petitioned for her return after she had been transferred to Harpoot. In October, 1920, Dr. MacLeod co-operated with the Greek Government in caring for Greek refugees at Batum, Georgia. Twelve refuge camps and two hospitals were established there, Dr. MacLeod having charge of all the medical work. During the months of this very interesting service she was hoping for a call to India. About the first of the year this call was received, and we are anticipating an interesting report of her work in that far eastern country at any time.

At the request of the Near East Relief Committee Dr. Mabel E. Elliott was appointed director of our co-operative work in Ismid. Dr. Elliott was first sent out to Armenia by the American Women's Hospitals in February, 1919. She had charge of the hospital and medical work at Marash during the Turkish siege of that city. Her diary, written under fire and covering the period from January 23, 1920, when the fight began, to February 10, 1920, when she and the rest of the personnel, including Mrs. Powers, who is now with the Serbian forces, is a thrilling narrative.

Conditions at Ismid were shocking when Dr. Elliott took charge of the hospital at the beginning of the year. Large numbers of children were dying from deprivation and exposure in the refugee camps. Typhus, tuberculosis, smallpox and tracoma were prevalent. In the isolation room at the hospital she found four cases of typhus and one case of smallpox. There were cases of meningitis, and the activities of the Kemelist soldiers provided military surgery.

Dr. Elliott is a woman of charming personality. Everybody loves her, and therefore everybody wants to help her. The fine art of goodfellowship makes her a host in herself. The Greeks, Turks and Armenians give her as much assistance as they possibly can, and the English doctor on the British gunboat lying in the harbor recently sent her word that he was ready and anxious to give her anæsthetics or do anything that might be of service.

In addition to the hospital and dispensary at Ismid clinics are being conducted at Derendji and Bardazac. Tabulated reports for the months of January and February show that four thousand one hundred and eleven cases have been cared for. Colonel Coombs, of the Near East Relief Committee, and Dr. Elliott are both of the opinion that this work should be conducted indefinitely. The following is quoted from a recent letter received from Dr. Elliott:

"We had patients lying about everywhere on the floor all last month, and it looks as though we are going to have to do the same thing this month. We have been running about forty typhus and forty pneumonias for some weeks. * * *

Digitized by Google

"I wonder if the people in America realize what the magic words 'American Women's Hospitals' mean to these people out here? The picture of the woman lying down is a patient who is too ill to even open her eyes while her first picture is being taken. Indeed, she has never seen a kodak before, and yet she has ridden, with four others as sick as herself, for three days over the mountains in a water buffalo wagon. All four got well and went off happy and grateful. Unfortunately, all stories do not end so happily. Last week twelve came to the hospital in the same manner, all from the same village, and all died in three days. They were all practically dying when they arrived. * * *

"Oh, the horror of these things! Happy the people who have never seen one of them and have nothing to forget. Such utter wretchedness can never be imagined or described. * * *

"The picture enclosed of this emaciated little girl was taken after six weeks of feeding. When she was first brought in she was unable to raise her head or feed herself. She has improved under proper feeding so that she can almost stand alone. We can't call her 'fat' exactly yet, but she is considerably filled out compared to what she was. Many of these children are brought in to us with their knees drawn up to their chins, and they have lain such a long time in this position, trying to keep or get warm, that it takes days of oil rubbing to loosen up the tendons sufficiently to draw their legs down straight. Many of them die within a few hours after their arrival, but usually, if we can get them over the first strain of their first two or three meals, they gradually begin to take a little interest in life, and it is wonderful satisfaction to see them slowly get a grip on life and learn to smile.

"We have in our hospital what I call our 'smile class.' At first these children lie for days and just whimper like some little wild animal caught in a trap. We keep coaxing them to smile 'til one day it comes. The great trouble is, that all these children need months and months of proper care, and we can't keep them so long in the hospital, for there are always others to take their place, so I am planning a convalescent place across the gulf where the air is fine and where they will have a lot of space and where we can keep them at less expense than in the hospital. * * *

A class of Serbian girls in training for nursing

"The six young girls in the picture with Mrs. Nickerson comprise our new class of nurses, and it might be of interest to note that they have all been exiled during the war and have now returned to their homes. * * *

"I worry all the time about the condition of the children, but the relief people are opening up a school for refugee children, and we are going to examine every one of them, and in that way we will get them into our sanatorium before it is too late. When children get to the stage this child is in, one despairs of ever making normal children of them. So many who come in to us are simply waterlogged with chronic nephritis, enormous spleens, etc.; and while we make them live in many cases, they are never normal children again. Of course we have our clinics, but so many of these people are in such a condition after their exposures and privations that they do not know enough to find us."

(Signed) MABEL E. ELLIOTT.

Digitized by Google

ALL IN THE DAY'S WORK*

By CLELIA DUEL MOSHER, M.D.,
Stanford University, California.

A Series of Sketches from Observations Made by the Author During Her Service in France.

ONE o'clock on a soft May night; long lines of shadowy trees bordered the silver river, and from the sweet scented gardens that hedged in the walled road the nightingales were singing to the moon; the bark of a dog now and then broke the silence as he was roused from his slumbers by the sound of the feet of the marching women on the hard white road. The three shadowy figures, militant though tired, settled down to the swing of a long pull to the nearest beds in the next town.

The one who wearily lagged behind a few steps had stood all day trying to put some American push into the deliberate French workmen. Her lips twitched and a faint smile crossed her serious face as she remembered how she had harried the woman plumber into working at a rate never seen before, and at the picture of the irate old carpenter who came hobbling to the dispensary with the aid of his cane. For there were no workmen who were not either too young to be in the army, or too old and decrepit to be of use even behind the lines. And her smile broadened for a moment as she again heard his breathless remonstrance—"Toute de suite, toute de suite, toujours toute de suite, with the Americans. I have gotten up earlier during the last two weeks than ever in my life before to serve the American Red Cross, but, Madame, it can not be done that way in France."

Then as she wearily trudged along through the night, her face settled back into lines of sadness that became almost stern as the panorama of that night's events passed before her tired eyes. There had been the poor dinner in the café garden; the train missed; the search for a carriage to take them to the next town to get beds to sleep in; and then, the finding of the dying girl!

She felt again her pounding heart and her labored breathing as she ran block after block to the mairie, trying to keep ahead of the carriage with its tragic load on its way to the civil hospital. There was his honor the Maire, collarless, with his dressing gown wrapped around him, hastily signing the paper which alone would open the fast-barred doors of the hospital on the hill.

She heard again the clanging bell and saw the slow opening of the great gate, and in the distance, at the hospital steps, the shadowy figures moving about the dying girl on the stretcher.

In the entrance hall of the hospital, for the moment she forgot her utter weariness and exhaustion as she saw that fine, forceful English woman, wlid with indignation at the unwilling opening of the doors, and heard her splendid fury as with flashing eyes and with ringing voice she demanded "Have you no humanity? Will you hasten!" And she felt again the force and power of her own quick anger as she started toward that doddering old man who, keys in hand, refused them entrance, defiant and yet cringing. He was unable to withstand this new force, but turned and unwillingly led the way as the gray haired doctor in her military uniform, with the Maire's order in her hand, advanced threateningly with her low toned but emphatic, "vite, go."

Then she saw another picture—those sobbing girls, the little munition worker's companions; the silent march up the long stairway to that over crowded ward; the silence unbroken but for the foot falls of the stretcher bearers and the soft sound of weeping.

The sight of that poor girl, only fifteen years old, just at the beginning of life; who, as if touched by some evil spirit, shrank before their very eyes from a full bosomed woman to a hollow cheeked child, lying there with the gray shadow of death creeping over her. Then the weeping mother came, and with her the weak chinned brother; and then was heard the sound of the cruel questions put by the

* Copyright, 1921, by C. D. Mosher, M.D.

Digitized by Google

overworked, black-habited sister who was in charge of the hospital, and the monotonous sound of the answers of the half-grown boy.

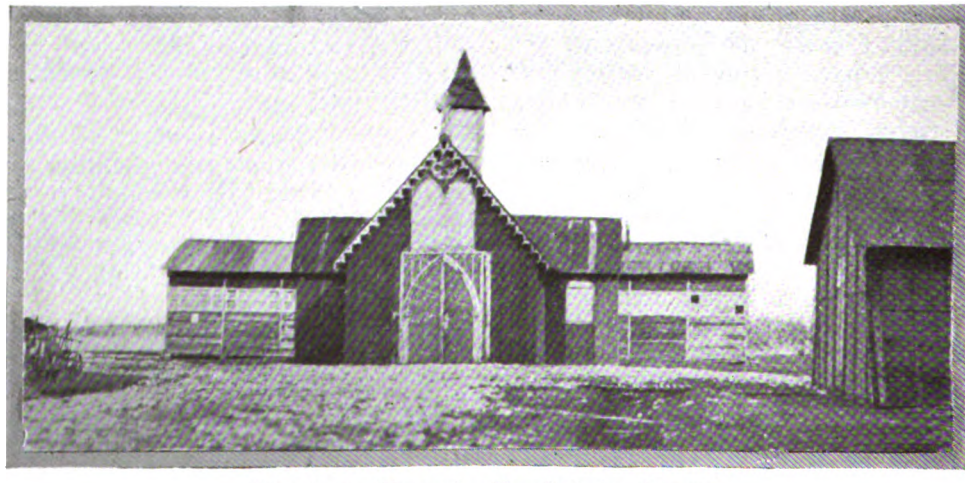
Oh, how conscious she was of the overwhelming sense of impotence and the failure of human effort and knowledge as they stood there in the presence of sudden and unavoidable death! She looked at this little munition worker, who apparently had been in perfect health, strong, rosy, well, struck down and in a few hours gone forever into the great unknown, the other side of death!

Finally the marching women came to the end of that seemingly endless walk through the silvery, soft-scented night! At last they stood at the vine clad entrance to the old inn, with the moonlight through the trees making fairy patterns over the path to the ancient doorway, while the nightingales sang their hearts out with the sheer joy of being alive!

In the old empty dining room, by the flickering light of a single candle, they ate the queer lunch of coarse war bread made from chestnuts and a bit of cheese, and washed it down with a draught of sour white wine. And then to bed! But in that crowded inn there was only a single room empty. So in that one room, this ill assorted trio, brought together by the chances of war, prepared to rest after the exhausting day that had lasted so long! On one of the beds was the splendid blonde English woman in her regal beauty; the young doctor, whose Castilian grandmother had handed down to her the beauty and coloring of the women of Spain, rested on an improvised couch on the floor; while the gray-haired woman, taking off her uniform, dropped down on the remaining bed, too weary to do more, and slept.

After a few hours of oblivion the sun streamed in through the open windows; a barking dog wakened the two doctors who silently, without arousing their companion, slipped into their uniforms and quietly stole out of the room.

In the early hours of that morning they walked through the dewy flowery fields, and over the long bridge across the Seine to the little town on the other side of the river. There they took the train back to the city to another day, and then—more work!



American Women's Hospital in Armenia

Digitized by Google

Abstracts from Foreign Journals

By MARY H. LAPHAM,
Highlands, N C.

Hyperthyroidism and Tuberculosis, Sergent (Paris Medical, July 24, 1920).

According to Sergent hyperthyroidism is very often diagnosed as tuberculosis and treated as such, which is very unfortunate, because the high protein diet is not good for the thyroid, and often the enforced rest cure is equally bad. When altitude is added to this, the effects are still worse. It is very natural for a physician who realizes the difficulty of detecting the earliest stages of tuberculosis to wish to be "on the safe side" so that when he finds a case with frequent pulse and respiration, with sweating, loss of weight and strength, and especially when there is a cough, he is quite inclined to believe that the tuberculosis has not gone far enough yet to be diagnosed from the physical signs, but that if it is not arrested by a tuberculosis régime, that it will soon manifest itself, therefore he gives the patient the benefit of the doubt and puts her on a tuberculosis régime. We say "her" because hyperthyroidism used to be so much more common in women. However, we are learning in these days that it is much more common in men than we had supposed; that minor grades of hyperthyroidism are not at all uncommon in men and are frequently diagnosed as tuberculosis. Tuberculosis specialists know very well that there is a large class of cases characterized by relapses, just as the patient seems to be making a good recovery; that very often when there is a good gain in weight and there is every reason to expect "a cure," that suddenly there is a hemorrhage, either from the lungs or in the shape of some vicarious manifestation such as bleeding from the nose or the rectum, and that hemorrhoids are very apt to complicate these cases. Again and again the patient climbs up to a certain point of improvement, and then come these waves of congestion sweeping through the body and causing these hemorrhages and renewed discouragement. These hyperthyroid cases are nearly always cases of hypertension. What they really need is a diet poor in iodine, a climate poor in iodine and a low altitude. The condition of the ovaries should be carefully estimated, because overactivity of the ovaries is exceedingly influential in inducing these waves of pre-menstrual congestion. It may be that anti-ovarian treatment would be as necessary as anti-thyroid. The irregular menstruation and the vicious circle established by it upon tuberculosis and by tuberculosis upon it is better combatted by ovarian preparations than any other way. The association of ovarian disorders with hyperemia of the lungs is not sufficiently appreciated.

Pediatrics and Syphilis, Laredde and Drouet (Journal des Praticiens, January 10, 1920).

The authors emphasize the fact that syphilis in the first months of infancy is not recognized even by specialists, chiefly because the books teach that syphilis in the baby, as in the adult, is recognized by its manifestations—by what is seen—and, if nothing is seen, why, of course, there is no syphilis. The syphilis of earliest infancy, in the immense majority of cases, makes no sign, and, in order to be found, it must be carefully sought. It is only exceptionally that we find the characteristic stigmata; the malformations, the cranial faults do not appear until during the second infancy. Congenital syphilis is only revealed by a lack of what might be called "prosperity." The child does not prosper and there is more or less cachexia, which is not in the least specific. It is only now and then that these cases of congenital syphilis in the first months of infancy are not cachectic. They are not vigorous; their weight is below normal and the intestines do not act properly. Very rarely the baby has a normal appearance, weight and digestion. These babies, like the majority of the cases of acquired syphilis, have the appearance of health. A history of syphilis in the mother or in the father may be the only suggestion that the child

Digitized by Google

is threatened with syphilis later on in life. For instance, a baby eighteen months old seemed to be perfectly well. The weight was normal, also the physical and cerebral development. The mother had been treated for syphilis before the pregnancy began; therefore it seemed very improbable to us that the infant was not infected. Nevertheless the Wassermann was negative. There was one sign of syphilis which it is always worth while to seek, and that is a marked anemia. The white blood cells in this child were normal, but the red were only 3,510,000 and the hemoglobin only 55 percent. After two series of mercurial treatment of fifteen days each the red blood cells were 4,000,000, but the homoglobin was the same. It is rather interesting to speculate upon the future of this baby. With a negative Wassermann and characteristic anemia and the assertions of the mother that the baby was perfectly well, what shall we conclude and what may perhaps be the consequences if syphilitic processes are present? We know very well that this condition predisposes to respiratory and renal diseases, and it is more than probable that a certain percentage of deaths of children are never registered under their proper title. Babies are victims to the dogma that syphilis, during the earliest stages of life, manifests itself by stigmata. This is a great mistake, and the baby may pay dearly for it.

The Relationship of Tuberculosis Infections to the Constitutional Diathesis, Wolf-Eisner (Muenchener m. Wöchenschrift, January 23, 1920).

The extreme frequency with which tuberculosis develops in the puzzling constitutional diseases, such as the exudative and spasmophilic diathesis, has long suggested an etiological relationship. Exudative and spasmophile phenomena, no matter how or where they may occur, are always the consequences of the resorption of foreign proteids, which create a hypersensitiveness to themselves, resulting in phenomena of anaphylaxis. When the intestinal glands do not sufficiently break up the albumins, albuminoid substances may pass through the intestinal filtering apparatus and lead to the production of a state of oversensitiveness to themselves. It is precisely this hypersensibility to foreign proteids which constitutes the exudative diathesis. Just as hay fever and urticaria are the prototypes of the exudative and vasomotor disorders, leading through innumerable degrees to asthma, so the foreign proteids of bacteria, which enter the body without passing through the processes of digestion, create hypersensitiveness to themselves.

In cases of tuberculosis there seems to be: (1) an oversensitiveness to all foreign proteids, as well as the tubercle bacilli; (2) various exudative diatheses or conditions of vasomotor relaxation are often associated in children having tuberculosis; (3) there is a certain relationship between these diatheses of children and their food which is not sufficiently broken up by the intestinal glands, and so enters the body as a foreign proteid and causes these diatheses of childhood. We know that anaphylaxis to certain articles of food is very common in children, and that the exudative diathesis constitutes a large factor of children's diseases. Scrofula shows numerous exudative phenomena, so that Pfaundler, Moro, Escherlich and other authorities think that scrofula is a form of tuberculosis developing upon a lymphatic basis.

Wolf-Eisner thinks that the expression "lymphatic basis" is unwarranted, and that we should say exudative diathesis instead, but this would not be quite true, because tuberculosis in itself is probably the commonest cause of the exudative diathesis, especially in adults. In adults the eye, and especially the cornea, retains this childish reactive tendency, which makes it the place of choice for the manifestation of exudative processes in tuberculosis. Tuberculids in the adult are the same manifestation. Keratoconjunctivitis and phlyctenular ulcers are tuberculids of these predilective places. In these tuberculids we do not find tubercle bacilli, and inoculation also fails. These facts suggest an oversensitiveness with consequent vasodilatation caused by the foreign proteids of tubercle bacilli. We know that phlyctenular ulcers often follow the smallest doses of tuberculin in sensitized children.

The sensitization of children to the foreign proteids of tubercle bacilli seem to result in an over and under-reaction just as it does in scrofula. These differing reactions are probably due to the constitutional endocrine make-up of the child, which determines its response. This tendency to vasomotor insufficiency, to localized capillary congestions, which is the basis of the exudative diathesis, should be carefully considered, because it plays such

Digitized by Google

a dominating rôle in the spontaneous development of tuberculous processes. Congestion of any part of the respiratory mucous membrane is a very undesirable feature in the fight against tuberculosis—wet conditions mean colds, bronchitis and even pneumonia. The ability to withstand this tendency to exudation which favors the development of tuberculosis processes may be a dominant factor in the life and death struggle.

Injection of Mother's Milk in Insufficient Lactation, Carl Meyer (Zentralblatt für Gynäkologie, No. 23, 1920).

In twenty cases of insufficient lactation injections of mother's milk were given 26 times; 14 times only once, and 6 times twice. In two cases there were no results. In 6 cases there were very scanty results; 2 cases were uncertain; and in 16 cases, or 61.5 percent, there was a decided increase in the amount of milk secreted. In some cases the increase was very decided. The mothers said that they could feel a decided filling of the breast, or that the milk began to trickle out. Kirstein has said that possibly suggestion played a large rôle in these cases. This was not sustained by Meyer, for women who were not at all maternal in their instincts and who regarded their babies as a burden, reacted just as well. Meyer is inclined to believe that, according to the teachings of Abderhalden, the injection of organic substances provokes a reaction on the part of the organ from which they are derived. This may explain the results obtained in the use of desiccated preparations of the ovaries, pituitary and other endocrines. The technique of injecting the mother's milk is so simple; it is so easy to obtain the material for the injection and its use is so harmless that in all cases of threatening insufficiency of lactation these injections should be given.

CHILD HEALTH DEMONSTRATION

Washington.—Preliminary plans for a child health demonstration, unique in character and scope, and promising to prove of first importance in the general movement for conservation of child life and health, have been announced by the National Child Health Council, with headquarters in this city. With an appropriation of $200,000 set aside for this purpose, the Council, composed of six leading national health bodies, will assist some American community of between 20,000 and 30,000 population and the surrounding county in securing as nearly as possible ideal conditions for the development of its children, from babyhood to adolescence, into sturdy, happy, useful citizens.

The first step will be the selection by a committee of experts of the community in which the demonstration will be carried on over a period of five years. Geographical limitations are not imposed in the selection of the community, but the Council believes the following qualifications will insure that the results are of greatest benefit to the entire country:

The town or city should be located in a county of between 50,000 and 60,000 population. The population should be fairly stable.

The age distribution of the population should be fairly near the average, especially as to the percentage of children and babies.

There should not be any strikingly predominant racial stocks.

The city or town should have a normal percentage of its population engaged in manufacturing.

There should be a variety of industries in the city.

The surrounding area should be agricultural territory.

The town should be in a birth registration State and should have fairly complete vital statistics.

The mortality of infants and children should not be strikingly abnormal. Health conditions should not be abnormally good or bad, and health machinery, including State laws, local ordinances and personnel, should be equal to those of a community of similar size.

Member societies of the National Child Health Council are: The American Child Hygiene Association, American Red Cross, Child Health Organization of America, National Child Labor Committee, National Organization for Public Health Nursing, and the National Tuberculosis Association.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.— Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to
MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

"UNITED WE STAND"

AESOP'S fable, "The Bundle of Sticks," which could not be broken, though each stick by itself was weak, represents the value of union.

Medical women have done remarkable work in the more than sixty years since Dr. Elizabeth Blackwell entered the profession. The medical colleges for women have brought together women of fine intellectual ability as teachers. Practically all the great medical schools in this country are now open to women, and all the county and state medical societies, including the American Medical Association.

All this, and yet until city, state and national societies of **women** were formed we worked as individuals, and not as a mass. In the minority everywhere, like the single stick we were weak, and our influence was felt only in the small circle which we touched.

Women have in the past written and published too few medical papers to give to the profession of today and to leave on record evidence of the real value of the work which we are doing.

We fail to take part in the discussion of papers read in our own medical societies upon which we have or should have scientific knowledge worth passing on. To this end we should give earnest study to the subjects on our society programs before going to meetings, in order not only to get out of the papers read all that is possible, but to be able to fill in facts which other speakers leave out.

The large medical journals are willing to publish a limited number of good papers written by women, but the number to be found in them is very small.

"United we stand, divided we fall" certainly holds good in regard to medical women. We have for years been so afraid of "segregation" that we have failed to gain the strength that union always brings. The City and State Societies of women have already proved the value of "shouldering up" to each other, and now the National Association has come into being to further strengthen the bond which unites the medical women of our nation. We have tried the individual plan long enough to demonstrate its weakness. Let us throw to the winds our **fear** of segregation; let us **segregate** instead—try the experiment of getting together in great numbers and see what will happen.

The "Journal" predicts a great increase of respect for medical women both in and out of the profession—a stimulus to greater investigation and the writing of results—a real support of our own publication such as it has never had since its inception. Papers for it, news items of interest to the profession in general, etc., should flood its editorial office without the urgent appeals for them we have hitherto made—too often without result.

Let us unite our efforts, get together, become acquainted with each other and with the work each is doing. Let us become a **constructive** force, giving of our best to this poor, torn, needy world, remembering always that "Union gives strength."

E. M. M.

OFFICIAL NOTICE

The Medical Women's National Association will hold its 1921 meeting in Boston, Mass., on June 11th and 12th, following the regular meeting of the American Medical Association, and the time set for the annual dinner of the Medical Women's National Association is Friday, June 11, 1921.

All members who contemplate submitting resolutions to the Medical Women's Medical Association at this meeting are requested to send in their memoranda to the Councillors before June 11th.

L. ROSA H. GANTT, M. D.,
Recording Secretary.

ISABELLE THOMPSON SMART, M.D.,
Corresponding Secretary.

Digitized by Google

THE FIFTEENTH ANNUAL MEETING WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE

Will be held at the
Kings County Medical Society Building,
No. 1313 Bedford Ave., Brooklyn,
On Monday, May 2, 1921.

Meetings called at 10 a. m. and 2 p. m.
All Women Physicians Cordially Invited

Program

MORNING SESSION, 10 a. m.

Meeting Called to Order by the President,
Dr. Lois L. Gannett, Adams
Invocation, Dr. Eliza Mosher, Brooklyn
Report of Secretary,
Dr. Harriet M. Doane, Fulton
Report of Treasurer,
Dr. Elizabeth Shrimpton, Syracuse
Greetings from New York State Medical Society,
Dr Richard Kevin, President, Brooklyn
Response, Dr. Marion Craig Potter, Rochester
Reports of Chairmen of Special Committees:
Scientific Program,
Dr. Isabel Meader, Watertown
Legislation,
Dr. Jane Baldwin, Poughkeepsie
Public Health,
Dr. Mary Gage-Day, Kingston
Medical Education of Women,
Dr. Mary T. Greene, Castile
President's Address,
Dr. Lois L. Gannett, Adams
Paper—Medical Facts Culled from Fifteen Years' Practice,
Dr. M. Louise Hurrell, Rochester
Discussion,
Led by Dr. Florence Sherman, Albany
Announcements,
Dr. Eliza M. Mosher, Chairman of the Committee of Arrangements.
Recess for Luncheon.

AFTERNOON SESSION, 2 p. m.

Election of Officers.
Report of American Women's Hospitals,
Dr. Esther P. Lovejoy, New York
Symposium on Health.
The High Grade Mental Defective,
Dr. Alice Bennett, Buffalo
Health Education of the Individual, Y. W. C. A., and the Women's Foundation of Health.
Dr. Josephine H. Kenyon, New York
Public Health Educational Work,
Dr. Carro Croff, Buffalo
Discussion of All the Papers:
Dr. Harriet Coffin, New York
Dr. Kuhlman, Buffalo
Dr. Edith R. Spaulding, New York
Unfinished Business.
Adjournment.

For Your Information

To reach 1313 Bedford Avenue: From New York take any subway train having Atlantic Avenue on the window, leave the subway at Nevins Street, and take surface car to Bedford Avenue.

Banquet

The annual Banquet will be held at Hotel Bossert, at 7 p. m., Monday evening, May 2d.

Toastmistress, Elizabeth Thelberg, M.D., Poughkeepsie.

Special Notice

A cordial invitation has been extended by Dr. Lownes of the Naval Hospital to all members of the Woman's Society to visit the Naval Hospital on Tuesday, May 3d, at 9 a. m. Full directions for reaching the Naval Hospital will be announced at the meeting, as we are sure a large number will wish to avail themselves of this opportunity.

The one hundred fourteenth annual meeting of the Medical Society of New York State is to be held in Brooklyn May 3d, 4th and 5th. The scientific sessions will be held in the Armory, where programs and full information can be had at any time.

FURTHER ANNOUNCEMENTS FOR ANNUAL MEETING

Dr. Edith Hale Swift wishes us to announce that Headquarters for the annual meeting of the N. W. N. A. have been established at 85 Newburg St., where all information can be secured from the afternoon of Sunday, June 5th, to the end of the session.

Dr. Swift further wishes us to announce that all applications for reservations **must** be sent to Dr. Edith Hale Swift, 110 Bay State Road, Boston, Mass. Applications made to the house mistresses of the different houses will **not** be considered.

Baggage to Back Bay Station (on the N. Y. N. H. & H.) or Huntington Ave. (on the B. & O.). All houses except Cambridge one can be reached by walking. Checks left at 85 Newbury will ensure light luggage by evening of the day of arrival. Trunk checks should be given transfer company at station on arrival.

Digitized by Google

AMERICAN MEDICAL EDITORS' ASSOCIATION

The fifty-second annual meeting of the American Medical Editors' Association will be held at the Hotel Lenox, Boston, Mass., on Monday and Tuesday, June 6th and 7th, under the presidency of Dr. H. S. Baketel, editor of the "Medical Times."

A novel feature of our literary program will be introduced this year in the shape of a symposia, which will be discussed by various members. The subjects will be:

"Group Practice and the Diagnostic Clinic."

"What Should be the Attitude of the Profession Toward Health Centers?"

"The Correlation Between Editorial, Advertising and Subscription Work."

Every doctor, even remotely interested in medical journalism, will find it to his advantage to attend, and is most cordially invited.

"NEW YORK MEDICAL JOURNAL" CHANGES TO SEMI-MONTHLY

On March 2d the "New York Medical Journal" was converted into a semi-monthly publication. It will be enlarged, greatly improved and its high character will be maintained.

The "Journal" in its seventy-eighth year has made great strides. The high quality of its contents is the topic of conversation in medical circles throughout the United States, and today it is recognized by the medical profession as a most practical and influential medical journal. The typographical appearance will be in keeping with the high standing of the "Journal," the special issues, in which are grouped together the latest findings by the men in various specialties, will be enlarged, and more pages will be devoted to original communications and other departments.

In Honor of Mme. Curie

The June issue of the "Medical Review of Reviews" will be a special radium number dedicated to Mme. Curie. The issue will consist exclusively of articles on radium and its uses, written by the most prominent radiologists in the United States and Canada.

Copies will be sent complimentary to every physician interested in the uses of radium, and any readers of this item who desire that issue may have it by asking for it from the "Medical Review of Reviews," 51 East 59th Street, New York.

ROCKY POND CAMP

This is a delightful place in the Adirondacks, where one can feast one's eyes and gain new strength and vigor. We have received an artistic booklet from Dr. Martha Tracy, who is the fortunate owner of this fascinating spot, wherein she tells how she proposes to share it with those who desire to live simply in the open during the summer. Write for this booklet to Dr. Tracy, Director, 1720 Chestnut St., Philadelphia, and you will probably be tempted, even as we were, to make reservations for the entire season.

The Art of the Therapeutist

It is pleasant to think of therapeutics as an art rather than as a cold science. The thought suggests the mature artist who, through the medium of a few well-chosen tints, is capable of giving expression to his fancy or his emotions.

To the ingenuity of the artist may be likened that of the therapeutist who selects his agents with consummate skill. He applies them deftly, here and there, as the artist touches the canvas with his pencil, with results that are definite because he has in mind a definite plan of procedure. Even the selection of a simple laxative—Pill Alophen, for example—is not a haphazard act, but entails the exercise of judgment and skill based upon experience and a comprehensive knowledge of physiology and therapeutics.

The physician skilled in his art clearly sees certain indications for Pill Alophen—the necessity of relieving an over-distended colon with the least possible disturbance of a delicate organism, perhaps. He mentally reviews the list of available laxatives, to most of which there is some contra-indication—they do not exactly suit the conditions; they do not blend into the therapeutic scheme, so to speak. But Pill Alophen presents no such objection. Its action is mild, gentle, yet thoroughly efficient. Its administration offers no difficulty—it is beautifully coated with sweetened chocolate. But one pellet is sufficient in most cases, preferably taken at bedtime, and the result is all that one could wish—an easy, complete evacuation in the most natural way imaginable.

Pill Alophen is the product of a modern scientific laboratory. It is an agent worthy of the esteem of the therapeutist who is particular in the choice of his remedies. It is an efficient though mild laxative and of peculiar value in colonic stasis.

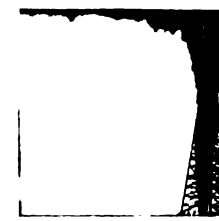
Digitized by Google

Nujol has unequalled advantages

The makers of Nujol have unsurpassed facilities for the production of liquid petrolatum of absolute purity, correct viscosity and high, uniform quality.

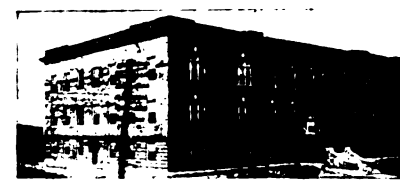
The manufacturers of Nujol have world-wide resources.

Only the finest raw materials are used in the manufacture of Nujol.



Nujol owners operate the largest merchant fleet flying the American flag.

Nujol is bottled in a clean, light, airy laboratory.



Research and testing laboratory.

The Saybolt Viscosimeter for testing viscosity of petrolatum liquidum was invented by Dr. Geo. M. Saybolt, for many years head chemist of the Standard Oil Co. (New Jersey).

Nujol Laboratories, Standard Oil Co. (New Jersey) Room 44 Beaver Street, New York.
Please send booklets marked.

☐ "IN GENERAL PRACTICE" ☐ "IN WOMEN AND CHILDREN"
☐ "A SURGICAL ASSISTANT" ☐ ALSO SAMPLE

Name ..... Address .....

Digitized by Google

REVIEW OF YEAR-BOOK.

The American Year-Book of Anesthesia and Analgesia, 1917-1918. (Copyrighted January, 1921.) F. H. McMechan, M.D., Editor. Large quarto, bound in art buckram and printed on natural tint paper, 471 text pages, 175 illustrations, containing a cumulative index of the pertinent literature for 1917-1918 and contributions by 84 eminent authorities. Surgery Publishing Co., Publishers, 15 E. 26th St., New York City. Price, $10.

The American Year-Book of Anesthesia and Analgesia (copyrighted January, 1921), covering the advances in these subjects during 1917-1918, is just at hand in its de luxe format, making as much of a typographical as a scientific appeal. Delayed in publication by the World War, it contains those methods of anesthesia and analgesia introduced to expedite military surgery, which are to find a place for themselves in civilian practice for the benefit of all concerned.

Again the editor of the Year-Book has tried to make it appeal to all the progressive members of the allied professions and specialties, who, in any way, are vitally interested in current advances in the science and art of anesthesia and analgesia.

The Year-Book, as a cumulative encyclopedia, provides the anesthetist, specialist, surgeon, dentist, research worker and hospital superintendent with those special advances that meet their individual requirements.

Fundamental studies in the pharmaco-physiopathology of anesthesia and analgesia, of exceptional merit, have been included, and as many of them have a direct bearing on the clinical handling of patients submitting to operations under narcosis they are doubly significant and valuable.

All pertinent phases of the science and practice of anesthesia and analgesia, during 1917-18, have been covered in collated papers and researches from the most prominent international authorities, and the Year-Book is again a comprehensive and exhaustive post-graduate course. To those interested it is not a luxury, but an every-day necessity as a reference volume.

Aside from series of contributions on complicating and safety factors of anesthesia, acidosis, blood changes, blood pressure variations, pharmaco-physio-pathological studies both in general and local anesthesia, methods of technic, especially those developed in war surgery and the newer methods of local analgesia in surgery dentistry and the specialties, the Year-Book contains a Cumulative Index of the Pertinent Literature for 1917-18, which is invaluable to any one making a study of any phases of these subjects and needing the necessary bibliography for reference or teaching.

"Midwifery in India—A Rising Standard Among the Dais."—The report of the Victoria Memorial Scholarship Fund for 1919 shows that the work done among the native dais (hereditary of practicing midwives) in India is resulting in the lowering of the previously high rate of infant mortality in their practice, and in the improvement of the conditions of childbirth in India generally. For six large cities a maternity supervisor has been appointed, whose duties are to visit each center at least once in three months for a ten-day period, a resident trained midwife having also been appointed in each city, who visits cases of childbirth free of charge on being summoned by the native dais. For calling a midwife to a case before the baby is born the dais gets an additional fee. The work has been spread over six cities in the hope that the municipal boards may become interested and undertake more extended work. A new school is soon to be opened at Delhi for the training of midwife supervisors and health visitors.

PERSONAL.

Dr. Florence Meredith, consultant of the United States Public Health Service, and a member of the American Medical Association Council on Health Education, has been appointed Associate Professor of Hygiene in the Woman's Medical College of Pennsylvania.

H. H. Bunzell, Ph.D., University of Chicago, formerly Professor of the University of Cincinnati Medical School, has been appointed Associate Professor of Chemistry in the Woman's Medical College of Pennsylvania.

THE SUCCESSFUL FEEDING OF INFANTS

The feeding of infants continues to concern the doctor at all seasons of the year, as it will increasingly in proportion to the number of bottle-fed. Nor are there indications that this number will diminish, for plainly the custom of weaning infants early from the breast, or even denying them the breast from the first, is plainly growing.

To be sure, we have in our large cities better living conditions generally, with special reference to tenement quarters occupied by the poor, whose children naturally are the ones most often affected. So also has the quality of milk improved, as the result of legislation in nearly all of the States. But even so, the problem is by no means solved. For cow's milk, although of the best, does not serve so satisfactorily for human infants as for calves.

Cow's milk if used must be modified for the purpose of infant feeding, as in Nestlé's Food, which is powdered milk plus carbohydrates in the form of wheaten flour and sugars in precisely the proportions to approximate the whole, when water has been added, to the lacteal fluid of the breast.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 5

May, 1921

$3 per year in advance
Single Copies, 25 cents

THE POSSIBILITIES OF X-RAY IN PREGNANCY

By ANNA L. MILLER, D.D.S., M.D.
Chicago, Ill.

FROM an historical point of view our first attention has been called to the X-ray in cases of pregnancy by Dr. P. O'Donnell, who has done a great deal of experimental work for the surgeon, Dr. J. B. Murphy, at Mercy Hospital, Chicago.

At that early date—1910—they were able to show the possibilities of the X-ray as a means of assisting the obstetrician in his work. A series of plates were shown from the fourth or fifth month to the time of delivery. We are informed excellent results were obtained, in that one secured a very good idea of the formation and position of the fetus in the maternal pelvis.

In those days it was indeed a difficult matter to secure good results for the reason that the apparatus used was very much inferior to that which is used today and required a much longer exposure, and as a result there were many more secondary scattered rays than we encounter today. Then, too, they did not have the quality of plates or films that we are now able to secure at the present time. However, we are told that intensifying screens were used, which, of course, shortened the period of exposure.

Five years after Dr. O'Donnell's work, Tousey, of New York City, reported that an X-ray diagnosis of pregnancy and of extra-uterine gestation could be made. He said a radiograph of the pelvis would be of much service in either of these conditions. What is found is apt to be a shadow of the fetal mass rather than shadows of different bones.

Lichenstein describes a case of extra-uterine pregnancy with mumification of the fetus. The diagnosis was made by means of a radiograph taken with a medium soft tube without a diaphragm and an exposure of one and three-quarters minutes. The maternal pelvis showed sharply, but the lumbar vertebrae were not so distinct. Over the right rim of the pelvis two fetal extremities were seen, one being a part of the thigh and the other, at an angle with this, being the leg. The ribs showed as a striped area on the other side of the mother's pelvis. A pelvis presentation was diagnosed which was verified at term.

Many roentgenologists have found that the roentgen ray is valuable in the estimation of Cesarean section, deformed pelvic region, in the diagnosis of twins at the fifth month, and in estimating the age of the fetus. The entire fetus has been shown on radiographic plates and films.

In flat pelvic deformities and some oblique, especially those in which an exostosis is shown, engagement will not occur, whereas in other oblique deformities engagement will occur, and these are all shown in radiographic films.

Considerable experimental work has been done showing various foreign bodies in the generative tract, as, for instance, pessaries and hydrostatic bags. A case, in which the bag of waters had been broken, causing a dry labor, hydrostatic bag was used, in which the head was raised and then delivered. The hydrostatic bag and head were plainly seen on the film. Various presentations have been diagnosed, as, for example, occiput post, which proved to be as diagnosed.

Today we have a great advantage in that we have available the double inten-

Digitized by Google

sifying screen and the duplitized film, which shortens the period of exposure ten times. This means, of course, nine-tenths elimination of the scattering or secondary rays. Recently Dr. Potter, of this city (Chicago), perfected the Bucky diaphragm. The Bucky diaphragm is an apparatus which absolutely excludes scattered or secondary radiation, enabling us to secure sharp outline of the deeper structure of the body, as at the moment we are able to secure of the hand and foot, without this device.

The announcement and the demonstration of the Victor model of the Potter-Bucky diaphragm at recent medical and roentgen societies created a great impression, and it is in response to the many manifestations of interest that Victor engineers with Dr. Potter presented some of their experiences which had been gained in their extensive experimental work. Working models were made and tested, the latest one of which we will make an attempt to describe. Strips of type metal 5/8 inch wide, 1-50 inch thick and two feet long are mounted on a form which is shaped so as to resemble a section of the shell of a cylinder. All metal strips are parallel and spaced by wooden strips about 1-6 inch thick. This makes the strips with the spacers run about five to the inch. The curve put into the complex or diaphragm is such that the rays from a tube target twenty-eight inches above pass through the spaces, without impinging on the sides of the strips—just the edges. Consequently the radiation from the focal spot passes through the patient and then through the top support, continuing on through the grid. The plate or film immediately under the grid records the radiographic image.

The function of the grid is to intercept scattered radiation issuing from every part of the patient in all directions other than that which we might call the normal or principal ray issuing from the focal spot of the X-ray tube. The primary ray which records the shadow passes through the grid between two lead strips uninterrupted. This process goes on for each and every particle of matter radiographed and results in the obliteration of a general fog common to the ordinary radiograph, giving a crystal-like clearness and contrast to the radiograph such as can not be equaled by any other method up to the present time, especially on large plates and heavy parts such as the pelvis and spine.

Then the quality of the work with the use of the Victor-Potter-Bucky diaphragm is dependent on the fineness of the grid, the purpose of which is to intercept the fog-producing secondary rays. The fineness of grid is most essential to high quality radiographs, because the finer the grid the less possibility will there be of shadows cast upon the plate to mar the radiograph. Then the thinner and narrower the metal strips the wider will be the range of focal distances, ranging from 20 to 35 inches. The average distance is usually 28 inches from the plate or film.

Some of the distinctive features, then, of this new apparatus may be summed up as follows:

1. Fineness of grid.
2. Minimum time factor.
3. Minimum scattered radiation.
4. Improved motive power.
5. Exposure indicator.

In my judgment I believe that, with the Victor model of the Potter-Bucky diaphragm, radiographs of the mother being taken will illustrate to the obstetrician the exact conditions that he will meet in his work of delivery.

Training of the Deaf.—A study of institutions for the deaf in nine States, involving 2,500 children, was made by Rudolph Pintner and Jeannette Reamer, of the Ohio State University. The results of their study are published in two articles, "A Mental and Educational Survey of Schools for the Deaf" and "Problems Raised by the Survey of Schools for the Deaf," in the November number of the Appeals of the Deaf.

Digitized by Google

SOME CASES OF EPILEPSY AND THEIR TREATMENT

By DR. LOIS GANNETT
President's Address
Read at Fifteenth Annual Meeting Women's Medical Society of New York State

SOME one has said "Genius is really the capacity for giving infinite attention to detail. According to that definition every doctor needs to be a genius. And especially is this true when one deals with those unfortunates who are subject to convulsive seizures, commonly called epilepsy.

The uncertainty of time and place when these seizures may occur, the public dread of the afflicted individual and the individual's dread of public gaze, as well as the impossibility on the part of the doctor to promise definite relief, all tend to make the condition a very trying one for all parties concerned.

Frequently our best work is done when our personal friends are in need, and that explains why I made a study of epilepsy.

About eight years ago a friend and neighbor, some six years younger than myself, suffered a severe convulsion on the lawn of her home when returning from a morning walk. I was away on my vacation, and the physician who was called pronounced the case to be epilepsy and told the young woman's mother it would become worse steadily, as "her time of life" was the exciting cause. For several months I knew of the case only as a neighborhood affair, and the attacks increased in intensity and frequency. Knowing I would be called as soon as an attack occurred during the absence of the attending physician, I began studying the best authorities at my command. I found no great comfort anywhere. Everybody agreed with Osler that "epilepsy is an affection of the nervous system, characterized by attacks of unconsciousness, with or without convulsions. The attacks without convulsions being called Petit Mal, with convulsions Grand Mal, and localized convulsions, usually without loss of consciousness, cortical or Jacksonian epilepsy.

Concerning the age at which this malady appears, Osler says the majority of the cases develop before the sixth year, while Holt places 46 percent between the ages of ten to twenty, with the greatest number about the time of puberty.

Holt says heredity is important, one-third of the cases giving a family history of insanity or epilepsy. Osler attaches little importance to heredity in epilepsy, although chronic alcoholism is frequently found in the parents. Both agree that syphilis is more often a complication of epilepsy in the adult than an hereditary cause of epilepsy in the child.

Authorities agree that cases are divided about evenly between the sexes, some placing a slight majority on one side and some on the other.

Thirty years ago we were taught the exciting causes of epilepsy were fright, masturbation, and alcoholism. Recent writers attach little importance to these causes and name intestinal toxemia and chronic constipation as chief among the exciting factors, with traumatism and local brain disease as the causes of Jacksonian epilepsy.

The symptoms of epilepsy are too well known to need enumeration. Interesting studies have been made of the various types of auræ which precede the convulsions. Little of practical value has been learned, although in some cases a definitely localized sensation, always true to form, has helped to the diagnosis of some brain lesion, the surgical treatment of which has effected a cure.

The general treatment outlined by most writers is light vegetable diet, suitable occupation, and surgical attention to any traumatic or infected area.

Holt emphasizes the use of borax as an intestinal antiseptic, and all writers stress the bromide combinations as the only drugs of value in controlling the convulsions.

As to prognosis, Osler quotes Hippocrates, "The prognosis of epilepsy is un-

Digitized by Google

favorable when the disease is congenital and when it endures to manhood and when it occurs in a grown person without any previous cause. The cure may be attempted in young persons—not in old." So far my study gave not a ray of hope.

My friend and to-be-patient was about 38 years of age. She had had convulsions in childhood, but was said to have had no attacks in twenty-two years. The patient and her family were becoming depressed and hysterical over the situation.

At this interesting juncture enter Dr. C. A. L. Reed, of Cincinnati, ex-president of the American Medical Association, a surgeon of national reputation, and then at the height of his activity as a specialist in epilepsy. Dr. Reed gave an address before the Alumni Association of the Medical College of Syracuse University, and the statements he made were startling indeed. He claimed to have discovered the bacillus epilepticus and to be able to isolate this bacillus from the feces of all epileptics and from the blood of some cases.

Dr. Reed was a fluent, earnest speaker and most enthusiastic concerning the work. I distinctly remember the emphasis with which he repeated his claim of finding the bacillus epilepticus in 100 percent of all cases examined. The theory as accurately as I can quote from memory was this—the bacillus epilepticus was a common affair outside our bodies with habits and habitat unknown. It was probably taken into the digestive tract with food of some sort and passed harmlessly on, unless an intestinal stasis existed, in which case it multiplied and gave off toxic substances sufficient to produce convulsions. The frequency and severity of the attacks were dependent, therefore, upon the quantity and activity of the bacilli.

The cure of this condition was simple indeed. Just operate and remove a Lane's kink, or any other old kink you might happen to find in the bowel, and the deed was done. Dr. Reed's attention had been called to this treatment by discovering in his files the histories of six epileptics whom he had operated for Lane's kinks, and who had written him months afterward to tell him they had had no more fits. Of course, the first published reports of his work brought an avalanche of epileptics to his office and hospital in Cincinnati. Then it was he found the average epileptic is not a good risk for an anæsthetic, and felt justified in operating only a small percent of the cases which came to him. He reported, however, marked improvement in a few very serious cases who begged so hard to have something done, even though the operation of choice was impossible in their weakened condition, that he had made a false anus in the ascending colon and flushed the whole colon daily, or oftener, with an alkaline solution, sodium bicarbonate being the alkali generally used.

The bacillus epilepticus was later proven to be an error in the technique of the pathologist who had charge of Dr. Reed's laboratory. His special operation has been discredited as a cure for epilepsy. Still I believe all epileptics owe a debt of gratitude to Dr. Reed. His enthusiasm and earnestness aroused many others to renewed studies along this line. The medical journals were full of reports of their findings. Personally I was inspired to read everything I could find on the subject, and about this time I was called to attend my neighbor. I made a detailed study of her case, and the only points I could find to work on were these—copious greenish liquid stools usually accompanied by vomiting almost projectile in character immediately following each attack. The vomitus was also greenish liquid with the odor of strong acid. There was also an entire absence of perspiration. A thorough examination of stomach contents followed by a bismuth meal, fleuroscopic examination and a whole set of pictures revealed nothing of value. The patient and all her family had become abnormally sensitive and secretive concerning the attacks, which were of varying intensity, and occurred once or twice each week.

As a first step in her treatment we held a council, attended by the patient, her father and mother and myself. We went

Digitized by Google

over the case openly together, discussing epilepsy as a disease to be studied and not as a curse to be concealed. I told them of Dr. Reed's address, and argued if he obtained relief from a colonic lavage by means of a false anus we could at least try the treatment by way of the real anus. I also advised a bath every evening with a pound of Epsom salts in a tub of hot water, the patient to be wrapped in a woolen blanket and go immediately to bed after the bath. The mother acted as attendant, keeping an ice-cap on the head and adding hot water frequently. The father arranged a clever rack for holding a rubber pillow for the patient's head.

For medicine I gave pancreatin 3 grs. after each meal and luminal 1½ grs. at bedtime, to be repeated if necessary in the morning. (I believe the luminal was never repeated.)

Where did I get that treatment? You may laugh, if you will; I have smiled more than once over it myself. I noted all the various drugs recommended in the articles published in the Journal of the A. M. A., and selected the two most earnestly advised in cases having similar symptoms. The patient had nearly died of starvation diets, so I told her to eat anything she wanted, as I knew she seldom ate meats and never heavy sweets.

The mental attitude of the patient during the interview was most interesting. Silent and almost antagonistic when we began the discussion, she listened for a few minutes, and then burst forth, "I'll do and take anything you want me to, but if you go telling other folks things about me that you don't tell me, I'll jump off the bridge sure." Almost as marked was the relief of the parents when they were told to do some definite thing to try to help their daughter.

As to results obtained by the treatment outlined: After two or three light attacks during the first month there were no more convulsive seizures for twenty-two months. Since that time there has been an occasional attack usually at intervals of six or eight months. About two years ago the attacks became more frequent and occurred usually at the menstrual period. We then stopped all other medicine and gave a mild saline in the morning and two grains ovarian extract after each meal, with the result that the attacks subsided, and not over two seizures have taken place in the last year. Even the simplest change in medicine is made with the full knowledge of the patient as to the whys and wherefores. The hot baths were gradually stopped after the first few months, but the alkaline enemas are still used at least once each weak.

The object of this paper is not to claim a cure for even one case of epilepsy. It is to put what little force and influence I have in the never-say-die column and to urge the open method of treatment for the adult patient. The more intelligent cooperation we can get from the patient and her family in any case, the more chance we have to do something worth while. The burden of responsibility in the seriously ill patient still rests with the doctor and frequently can be shared only with the trained nurse.

I am glad, however, to note the passing of medical secrecy as applied to ordinary illnesses. We all know how we shrink from the task of telling any one their case is one of cancer, tuberculosis or syphilis. Yet how can we expect the patient to protect herself and her family without a definite knowledge of the conditions she must face? Very often the "knock-out blow" which honor and honesty compels us to strike proves to be just the incentive necessary to rouse the flagging courage of the sufferer and make her play her part well even though she knows it leads to a bitter end.

Before closing this somewhat rambling and not at all scientific paper, I ask your tolerance while I briefly discuss the needs of the Women's Medical Society of New York State.

First.—Increased membership: The medical directory of 1920 gives the names of 693 women physicians in New York State. Our files show 140 active members and 82 associate members. Approximately 22 per-

Digitized by Google

cent of the women doctors of the State in the active membership and 32 percent as a total membership. Can't you clearly see this condition must be changed or any attempt at efficient work will be about as successful as the "tail trying to wag the dog"? I have absolutely no use for factionism in any form. This work is too big for it. Whether we use big pills or little pills, whether we hold a State position or are in private practice, whether we believe most in chemotherapy or physiotherapy, these are not the important questions. Whether we are big enough ourselves to recognize the right of every woman who has taken the full course of study and met the requirements of the State of New York as a practicing physician to differ with any one of us in many minor details and still be a big woman in the profession—that's the question. And I believe most of us are just that caliber. Let's form ourselves into one big committee for increasing the membership of the Women's Medical Society of New York State. I know your next president, Dr. Parker, would be proud to wield the gavel over an assembly that really represented at least two-thirds of the women physicians of the State.

When we are all working together in the State society it will be easy to take the next step and join the National society, the Women's American Medical Association. I received an appeal recently from Dr. Martha Tracy, asking me to help make the National society an influential one in New York State.

I have heard some criticism concerning the official journal of the National Association, the Medical Woman's Journal. Right here and now I acknowledge my personal indebtedness to Margaret Rockhill, editor of the Medical Woman's Journal, for the excellent work she has done under trying circumstances. I confess I was disappointed to find, in the last two issues of the Journal, valuable space occupied by material which had already been published as a bulletin. It is for us to remember that the official organ of any society can be no greater than the members of that society make it. I trust a copy of every paper presented here today will be sent to Mrs. Rockhill to be published at her pleasure. If every one in this room who has recently had an interesting case would send in a brief report of that experience there would be material enough on hand to insure real live issues for the next six months. Suppose so many papers were sent in that it would be impossible to publish them all? We all know the one who writes a paper gets more benefit than the one who reads it, so there would be no lost effort if some of our papers were not published.

It really seems to me we have rested our responsibilities on Drs. Eliza Mosher and Marion Craig Potter long enough. We owe them a big debt of gratitude, and the only way we can pay it is to turn in and help the society for which they have labored so long and so faithfully.

Women of New York State, I thank you for the privilege of being your presiding officer. I ask your patient consideration during the work of the day, and I pledge my loyalty, with yours, to the splendid woman who will soon take up this work as my successor, Dr. Esther Parker, of Ithaca.

A State Department of Public Welfare has been created in New Mexico, which includes a bureau of public health and a bureau of child welfare, to take the place of the former State agencies dealing with those subjects. The department will be under the control of a State board of five unpaid members, with a salaried director for each bureau. The existing child welfare building at Santa Fe will be used as headquarters for the activities of the child welfare bureau. The State board is given power to co-operate with the Children's Bureau or whatever agency may be authorized in carrying out the provisions of any bill which may be passed by Congress for the protection of mothers and babies. —[Santa Fe New Mexican, March 17th.

Child Welfare in Japan.—Infant mortality in Japan averages over 150 per thousand births, and shows no sign of declining. The whole subject of maternal and infant welfare is to be investigated by a special committee of the Japanese Home Department.—[National Health, London, March.

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M.D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

THE TREATMENT OF MALIGNANT DISEASE WITH EMETIN HYDROCHLORID.

By BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

IN response to many inquiries regarding the treatment of carcinoma with emetin, this is intended as a reply to cover the subject as thoroughly as possible. The treatment of cancer with emetin is based on the supposition that cancer is a general chronic disease with late local manifestations which exhibit under the microscope characteristic appearances, and that the etiological organism is ameboid multiplying as a sporozoa. In demonstrating that cancer is a general chronic disease, the symptom of gradual loss of weight over a considerable period of time is of great importance. This loss of weight is usually noted long before any lump or mass is found indicating the presence of malignant disease. Other facts in regard to carcinoma are also of interest. In metastasis no law has been found by which one can prognosticate the location or length of time of development. Even the period when a cancer is in its early stage is a matter more of conjecture than an accuracy. Almost every surgeon has had the disappointing experience of operating on a supposed very early carcinoma, and finding in a few months such rapid and general return of the disease that the patient is dead within six months after the operation. On the other hand, a patient who is practically hopeless when on the operating table will gradually gain strength after the operation, and will live for many years without exhibiting any evidence of malignancy.

During the past decade we have come to recognize that cancer is steadily on the increase. The influence of heredity is no longer denied. The distribution of cancer throughout the body is also indicative of some general infection. Primary cancer may be found in any organ or structure of the body, although some organs seem more susceptible than others. The three general chronic diseases with which cancer may be compared or classed are malaria, syphilis and tuberculosis. In an etiological classification syphilis and malaria have a marked similarity. In the variety of forms and organs infected, cancer bears a resemblance to tuberculosis and syphilis.

In demonstrating the etiological factor of cancer more satisfactory work can be done with the ascitic fluid of the patient suffering from malignant disease than from blood examinations. One of the possible reasons why this etiological factor has been overlooked in the examination of the blood of patients suffering from malignancy may be on account of the resemblance of the cancer ameba to the white blood cell, the cancer amœba being looked upon as an altered white blood cell. This amœba has, no doubt, been demonstrated by all the promulgators of the protozoan theory of cancer, but there will always be room for doubt of its verity unless the amœba can be destroyed, and after its destruction it can be demonstrated that the patient is free and safe from cancer infection. In selecting a method of treatment for the cancer amœba, that remedy which is considered the most effective of amobecides was chosen.

The results of the treatment for cancer with emetin bears out and in a way verifies the observations made on the amœba found in the blood and ascitic fluid of cancer patients. The treatment recommended is to administer five grains of emetin intramuscularly at periods of varying lengths. When the patient is first seen and a diagnosis is made, five grains of emetin with 1-30 of a grain of strychnia is given intramuscularly: the patient being in bed and prepared for treatment by the omission of the previous meal. This dose will produce nausea or nausea and vomiting of a more or less distressing character. A few patients are not at all nauseated, and a very few are badly nauseated for several

Digitized by Google

days. The majority of patients vomit from three to six times and feel quite well within twelve or eighteen hours after the injection. The vomiting is relieved or at least controlled by giving the patient every two hours a cup of strong tea made by boiling the tea for twenty minutes to extract the tannin. Milk or sugar may be added to improve the taste. This treatment is begun within an hour after the emetin has been administered and continued for twelve hours.

The emetin is repeated in from five to seven days according to the reaction produced on the patient. The action of the emetin on the malignant growth will be quite as satisfactory if given after a seven-day wait as after a five-day, but no dangerous symptoms will be encountered by repeating the dose in five days if it is thought desirable to do so. The decision as to the time of administering the third dose will depend upon the location, variety and size of the malignant growth. Five days to three weeks after the second dose has been given is the selective time in which any operative work should be done if desirable or possible. In cases where operative aid can be given it should not be neglected. Too much importance can not be put on the value of removing all or the bulk of carcinomatous masses. After two 5-grain doses of emetin have been given, the masses of malignant tissue may be regarded in the same light as necrotic tissue, pus or infected material, and the removal of the entire mass or a partial removal will save the patient from the toxemia produced by their presence or attempted absorption. If the growth is small or inaccessible, a third dose may be given after an interval of five or seven days following the second dose.

The toxemia which is encountered in every case of malignancy, but which is especially severe in advanced cases, seems to be best counteracted by keeping the patient on a diet of large quantities of milk and teaspoonful doses of strained honey at short intervals (one or two hours) or often enough that the patient will get from one to two ounces and from one and a half to three quarts of milk daily. Some patients can take eggs better than milk, and in such cases twelve eggs daily may be substituted for the three quarts of milk. Of the two a diet of eggs is preferable to that of milk. The diet, however, is never restricted to milk and eggs and honey, the patient being allowed any or all kind of food, providing she takes the prescribed amount of milk and eggs in addition to what she may desire of a general diet.

The most baffling symptom met in treating malignant disease with emetin is the tachycardia, which is often noted some days or weeks after the emetin has been given. This tachycardia is noticed after marked changes produced by the action of the emetin have taken place in the malignant growth. In treating this symptom, the stimulation produced by strychnia, digitalis, and hypodermoclysis is not satisfactory. Camphorated oil gives better results, and the continued use in ten-drop doses, or the occasional (when necessary) use of dram doses of Lloyd's preparation of cratægus, has proved to be the most valuable and reliable of the heart stimulants.

In addition to counteracting the toxemia the milk and honey act as a laxative, and the patient, when on this diet, rarely needs an additional cathartic. On the contrary, it is often necessary to discontinue or reduce the amount of honey for a time to control a tendency to diarrhœa. Most patients should be in bed when under emetin treatment. If the patient is in good physical condition, one day (the day of the administration of the emetin) in bed will be sufficient, but even the strong patient must be advised against excessive activity during the few days following treatment.

Many patients who have advanced carcinoma or who have been carrying the carcinoma for a long time will experience a feeling of weakness in the knees and legs after they have had two or three of the emetin injections. They experience difficulty in climbing stairs and walking, and if not forewarned of this symptom will become frightened and discouraged when experiencing it.

After the first course of treatment which consists of 5 grains of emetin with 1-30 gr. of strychnia given intramuscularly, and repeated every five or seven days for two or three times, the question comes up when and how frequently should more emetin be given. If an operation follows or is done at the time of the first course of treatment, 5 grains of emetin with 1-30 gr. of strychnia should be given intramuscularly one month after the operation, and once a month thereafter for a period of at least one year. The point at which the patient may feel safe without treatment is when a gain in flesh is noticed, and this is, of course, preceded by an increase in ap-

Digitized by Google

petite, sound sleep at night, and return of strength.

With the lack of a positive blood test of carcinoma, the time period has become the most important factor, if not the only one, in the determination of a permanent cure. If there is no sign of a return in one year following operation or treatment, the patient is given hope that she may be permanently relieved, and as time goes on a feeling of confidence increases until at the end of three years the patient is given assurance of security. Every year after the first three years doubles the security.

The use of emetin was started in Ward 40 at the Cook County Hospital, Chicago, September, 1915. The first cases of cancer which were treated were carcinoma of the cervix uteri. At that time the emetin was injected subcutaneously in one-third or one-half grain doses daily. After using it in this way for two or three months, the dosage was increased, and this increase was continued until in the latter part of 1917 it was found safe to give nine grains of emetin diluted with a liter of normal salt solution. This amount was administered as a hypodermoclysis under the breasts. In 1918 the intravenous injection of emetin was tried, and the dosage was increased gradually from four to nine grains. With the 9-grain intravenous dose the patient would occasionally have a violent reaction, and two patients died shortly after a 9-grain dose had been administered. Both of the patients who died were very toxic from inoperable and advanced carcinoma of the cervix uteri, one having almost complete occlusion of both ureters. On this account it was impossible to judge what effect the large dose would have on a more normal patient. The emetin was also injected into the carcinomatous mass in a few cases, but without noting any results whatever.

In the large 5.9-grain doses of emetin given subcutaneously, intramuscularly or intravenously, the first effect that is noted is a disappearance of the surrounding infiltration in the malignant mass. The skin, board-like and brawny, becomes again soft and elastic. The breast, if attached to the underlying muscles, becomes movable. The uterus, if fixed and indefinite in outline, can now be mapped out. The pain in carcinoma is due to the pressure produced by the infiltration into the surrounding tissue, and the patient after the emetin treatment gets great relief from pain and discomfort due to the disappearance of this infiltration.

The second result noted is a fibrosis in the malignant mass, so pronounced that on palpation the mass can be felt as a definite, very hard and fibroid tumor. These two results convert many inoperable into operable cases, and in this way more than doubles the chance for the patient to recover by surgical means.

The third result is the gradual softening and absorption of this fibroid tissue with an accompanying toxemia difficult to combat. To avoid or shorten this third stage, the removal of all that can be removed by surgery will make the problem of toxic control easier.

For this reason many very incomplete operations have been performed with more flattering results than has been obtained from complete radical operation in cases where no emetin has been used. As an example of the results of this treatment and the best way in which to combine it with surgery, a case of recurrent inoperable carcinoma of the breast may be cited.

The patient, a woman of 46, had had a radical operation for cancer of the left breast seven years previously by a fine surgeon of acknowledged ability. In thirteen months after the operation the growth had returned, and the patient was again subjected to operation by the same surgeon. In thirteen months following the second removal the third operation was performed on the breast for a recurrence and by the same surgeon. Eleven months following the third operation the growth reappeared, but this time the surgeon advised x-ray treatment. After taking seventeen x-ray treatments the patient became discouraged and made no further effort to obtain relief for more than two years. At this time, which was seven years after the first operation, she had a carcinomatous mass the size and shape of a small pineapple on the site of the left breast. The growth had a purplish color and looked ready to break down in several places. The arm was swollen and useless, and the skin surrounding the growth was so infiltrated within a radius of six to eight inches that it was impossible to move it on the underlying structures. She was toxic, weak and discouraged. When brought to the Frances Willard Hospital, Chicago, in May, 1920, she was put to bed and given five grains of emetin with 1-30 gr. of strychnia intramuscularly. For twelve hours after the injection she was given strong boiled tea with a little cream and sugar, one cup every two hours. At the end of twelve hours the stomach was

Digitized by Google

tolerant, and she was put on milk eight ounces and strained honey one dram every two hours in addition to what she cared for in a general diet. On the fifth day following the first dose of emetin she was given a second 5-grain dose with 1-30 gr. of strychnia intramuscularly and the after-treatment of strong tea for the first twelve hours followed by the milk and honey with general diet. Five days after the second dose of emetin the third dose was given, the treatment being an exact repetition in every way of the second dose. The patient was kept in bed during the twelve days consumed by this treatment. She was then allowed to go home for two weeks, but with instructions to continue the milk and honey diet. When seen at the end of two weeks or one month after the first treatment had been administered, the growth had lost its intensely purple appearance, was slightly smaller and firmer, but the most marked change was in the surrounding area. The skin that had been tense and immovable with infiltration had become normal, and the swelling of the arm was greatly relieved. She was, however, much weaker, could not stand on her feet or even lift her legs in bed, and the pulse was from 10 to 20 beats more rapid than it had been the month previous. In order to cut down the absorption of toxic principles she was advised to have the mass removed, and as she was quite eager to get rid of this deforming excrescence over the breast, she readily consented, and the mass of carcinomatous tissue was removed surgically. To facilitate closure of the wound without resorting to skin grafting, as much skin as possible was left. In many places the carcinomatous masses were scraped from the skin by the scalpel, and the malignant tissue was removed from the ribs in the same manner. No effort was made nor would it have been possible to remove all of the mass together with a margin of healthy tissue. In fact, such a procedure was out of the question, and it was quite easily seen that a great many areas of carcinomatous cells were being left in every part of the wound. In addition to the incompleteness of the operation, the surrounding skin was undercut a considerable distance to allow it to glide over and cover the incised area. The patient was in poor condition after the operation, but soon rallied and made a good recovery.

She has been given emetin on an average of five grains a month intramuscularly since she left the hospital. Six months after the first treatment she was gaining in strength and weight, and has continued to do so until the present time. In January, 1921, she was presented to the members of the Chicago Medical Society in the discussion following a paper read by Dr. Bevan on tumors of the breast. At this time she was eating well, weighed 126 pounds, which was 11 pounds more than she had ever weighed in her life, and was being employed as a waitress in a cafeteria. In February, 1921, she went to California, but the injections of emetin have been kept up once a month. Dr. Olga McNeal, of Los Angeles, who has administered the emetin, told her that she found no trace of the malignancy which has so persistently pursued her all these years.

This case illustrates practically all the features in the treatment, symptoms and results that have been learned in the six years' experience with emetin in the treatment of malignant disease.

Another case may be of interest because it demonstrates the method of use in a patient where operation is impossible or, at least, not desirable. The patient, 53 years of age, presented herself in February, 1920, with an adenocarcinoma of the rectum about two and one-half inches above the anus. The parts were infiltrated to such an extent that the rectum was immovable, and masses of carcinomatous tissue the size of an egg filled the lumen of the rectum. The patient did not desire an operation, and none has ever been done with the exception of the removal of tissue for examination and the stretching of a stricture which became troublesome six months after the emetin treatment had been instituted. The treatment was begun in February, 1920, three doses of emetin, 5 grains each, with 1-30 gr. of strychnia being given at five-day intervals. Strong tea immediately after the emetin, and milk and honey added to the diet, formed the treatment between the administration of the doses of emetin. Since the first treatment five grains every month have been given. The patient has had an examination of the tissue obtained from the diseased portion of the rectum every four months since treatment began. At every examination the report was returned adenocarcinoma, until the tissue obtained in March, 1921, which was returned non-malignant. She has been very weak, unable to be up all of the time, and not able to do much work. She always uses the street car in coming to the hospital for

Digitized by Google

her treatment, but she seems feeble, and has been greatly emaciated, weighing only 85 pounds when treatment was begun. In the last three months she has begun to improve, gaining 10 pounds in weight. No masses are to be felt in the rectum, but a firm stricture which easily admits a finger occupies the site of the original growth. The patient is still under treatment, and will be until she gains back her normal weight and the stricture is relieved.

The only spectacular demonstration in the use of emetin can be obtained in cases which are seen so early that the carcinomatous ulcer or mass will disappear after the administration of two or three doses of emetin.

The accompaniment of pyorrhœa with carcinoma is so universal that it is a question as to whether the etiological factor of carcinoma does not gain entrance to the system through the mouth. It may be of as great importance in the control of cancer to care for the teeth and to prevent pyorrhœa as it is to discover a remedy to cure.

The use of emetin in a large number and variety of cases during the past six years makes it possible to make this statement to the medical profession:

First.—Emetin will cure early carcinoma.

Second.—It will prevent the return in operable cases if used in connection with surgical treatment.

Third.—It will widen the field for operable cases by making inoperable, operable.

Fourth.—It will relieve the pain and odor in the last stages of advanced cases.

What we need now is a trial of it by the best in our profession. When this is done we may obtain as practical a treatment for cancer as we have now for syphilis, tuberculosis or malaria.

A Bureau of Child Research, to be established at the University of Kansas, has been authorized by the Legislature. The bill carries no appropriation, but co-ordinates the personnel and equipment of all the State schools, hospitals and institutions. A conference of the child welfare workers of the State is soon to be called by the Chancellor to formulate plans of work.—[Topeka Capital, March 23d.

MORTALITY RATES OF COLLEGE WOMEN

By MYRA M. HULST
With American Red Cross

THIS investigation was begun at the suggestion of Dr. Louis L. Dublin, Statistician for the Metropolitan Life Insurance Company and Lecturer in Vital Statistics at Yale University, and has been carried out with helpful suggestions from him. A grant made by the American Association for the Advancement of Science has defrayed the expenses involved.

The gathering of the data for this study was begun in 1918, and at that time the intention was to study the mortality rates among the graduates of the eight largest woman's colleges* used in the report on college women's occupations made by Miss Mary Van Kleeck, of the Russell Sage Foundation. It was found impossible to do this because of the enormous amount of labor involved. The graduates from Vassar, Wellesley and Smith, which included a large proportion of the alumnæ of the eight colleges, were finally chosen for study. Of the 22,692 women graduating since the founding of the eight colleges, through the class of 1914, there were 15,561 graduates from Vassar, Wellesley and Smith, or 68.6 percent of all the alumnæ from these eight colleges.

Investigations of the mortality rates for special groups present many obstacles, chief of which is the great difficulty of following a sufficient number of persons throughout their lives. College women present fewer difficulties than would be encountered in most other groups. Records taken in their college days of the dates of birth are available, as are also the facts of death as they occur among the graduates, and are recorded by alumnæ associations and the college registrars.

There is, no doubt, much in common in the habits, modes of life, and general circumstances of these women, which makes them a homogeneous group for study. They start out in life from college at approximately the same age. The median age at graduation for this whole group was twenty-two years. The environmental conditions, both before and after graduation, would be, on the whole, admittedly more favorable than the average for the community at large. The large number of old American family names among them

*These included Barnard, Bryn Mawr, Mt. Holyoke, Radcliffe, Smith, Vassar, Wellesley and Wells.

Digitized by Google

would lead one to conclude that most of them are women of native stock.

In the gathering of the necessary data for study, three facts were noted concerning each graduate—the year of graduation, the date of birth, and whether deceased or not; and if dead, the date of death. To this end the Collegiate Alumnæ Association generously lent the records which they had collected in the earlier census of the occupations of college women. These records, however, were not complete for a considerable proportion of graduates, and it was necessary to supplement their files. This was done through the co-operation of the registrars of the colleges, and from alumnæ catalogues and bulletins. Every effort was made to complete the records for the graduates, both living and dead, of the three colleges. The material was altogether in very excellent condition at Smith and Vassar Colleges; but in a few cases where certain items, such as the date of death, were not available, they were obtained by writing to friends or relatives of the deceased. A fire had destroyed part of the Wellesley records, so that they were somewhat less complete than the records of the other colleges. By correspondence with alumæ some missing dates were found, making less than 3.5 percent of the total dates of birth as unknown in the case of Wellesley, which was too small a percentage to affect the final results. In a few instances, where no date of birth was known, the person was considered 22 years of age at graduation, this being the median age at graduation for all colleges. Tabulations were made on the exposure year basis, beginning with the first of July and running through to June 30th. This was necessitated by the fact that the date of graduation is in the middle of the calendar year at all schools.

The facts were then tabulated separately for each class of graduates. Every individual was followed up to July, 1915, and was dropped out of the count only in the event of her death. It was impracticable to carry the study further than 1915 because of the danger that some of the deaths subsequent to this date would not be known to the college authorities. The number of years of life exposed were in this way obtained for each age. They were later grouped by five and ten-year periods, first for each class, and then for all classes of each college. These were found to accumulate to 66,885 years between the ages of 20 and 69 years for Vassar, 72,415 years between the ages of 20 and 59 for Smith, and 65,253 years between the ages of 20 and 64 for Wellesley. This gave a total of 204,553 years of life exposed for the whole study. The number of deaths was likewise obtained for each one of the age periods. Table 1 shows for each college, Vassar, Wellesley, and Smith, the exposure, the number of deaths, and the death rates per 1,000 for each of the age periods:

TABLE 1a

DEATH-RATES PER 1,000 EXPOSED
VASSAR COLLEGE ALUMNÆ 1867-1914

Age period	Years of life exposed	Deaths	Death-rate per 1,000 exposed
20 to 69—total...	66,885.08	278	4.16
20 to 24.....	12,357.58	17	1.38
25 to 34.....	30,436.10	99	3.25
35 to 44.....	14,282.04	65	4.55
45 to 54.....	6,672.50	57	8.54
55 to 64.....	2,879.25	34	11.81
65 to 69.....	257.01	6	23.34

TABLE 1b

DEATH-RATES PER 1,000 EXPOSED
SMITH COLLEGE ALUMNÆ 1879-1914

Age period	Years of life exposed	Deaths	Death-rate per 1,000 exposed
20 to 59—total...	72,414.68	185	2.55
20 to 24.....	14,439.92	18	1.25
25 to 34.....	38,723.02	100	2.58
35 to 44.....	15,351.00	50	3.26
45 to 54.....	3,673.65	13	3.54
55 to 59.....	227.09	4	17.61

TABLE 1c

DEATH-RATES PER 1,000 EXPOSED
WELLESLEY COLLEGE ALUMNÆ 1879-1914

Age period	Years of life exposed	Deaths	Death-rate per 1,000 exposed
20 to 64—total...	65,252.75	205	3.14
20 to 24.....	11,836.09	18	1.52
25 to 34.....	32,859.25	84	2.56
35 to 44.....	15,605.99	73	4.68
45 to 54.....	4,622.33	25	5.41
55 to 64.....	329.09	5	15.19

The specific death rates for the graduates of Vassar College present a much more consistent picture of mortality than those for either Wellesley or Smith. The rates increase regularly with advancing age, and, for the most part, are in close agreement with specific death rates available for similar groups previously studied. As shown in Table 2, the findings for the graduates of Vassar College are in close agreement with those for New York City school teachers and for women insured in the Ordinary Department of the Metro-

Digitized by Google

politan Life Insurance Company. The rates are very much lower than for women in the Registration Area of the United States; but these differences are to be expected in view of the more favorable social and economic condition of these Vassar graduates, their greater knowledge and very probable practice of personal hygiene, their less arduous and protected occupations, and their relative freedom from the hazards incident to child-bearing.

The death-rates for Wellesley Alumnæ also show an increase at each succeeding age period. The rise in the death-rate with advancing age does not take place so rapidly or so consistently as in the case of Vassar's mortality. At the age period 25 to 34 years, the rate for Wellesley is slightly lower than that for Vassar, and at the age 45 to 54 years, Vassar presents a death rate considerably higher than that of Wellesley. At the highest age period represented by Wellesley, 55 to 64 years, the rate shows an excess over that of Vassar; but the years of life exposed at this age period are too few to be of particular significance.

The facts for the alumnæ of Smith College are very surprising indeed. The death rates are lower than those for Vassar or Wellesley, but the difference is most marked in the age period 45 to 54, where the rate, 3.54, is less than one-half that for Vassar. In view of these findings, additional effort was made to certify to the accuracy of the data. Every possible channel was employed to discover unrecorded deaths. Letters were sent to each of the class secretaries from 1879 to 1895, which included the graduates who would be in the age period in which the extraordinary low death rate occurred. Replies were received from each one of these secretaries, and the record of only one additional death was obtained. There was no deceased member in the class of 1883 out of a total of 49 graduates. We quote here the reply received from the secretary of this unique class: "None of the 49 graduates of the class of 1883 has died—a record unequaled so far as I know in any class of men or women." This fact was further corroborated by emphatic statements from other members of the class. Another secretary certified to the record of only one deceased member in her class. Others confirmed our findings to the letter. In spite of the exceptional character of these figures for Smith College, we present them herewith with the assurance that they represent the truth as far as this college is concerned. It must be realized that the number of years of life exposed in the age period 45 to 54 is comparatively small. The death rate is therefore subject to the error arising from small numbers. The number of years of life exposed for Smith College at this age period is only half that of Vassar. The Vassar experience started with the first class graduating in 1867, and for Smith and Wellesley Colleges the first alumnæ graduated in 1879, which gives a much larger proportion of graduates for Vassar who have reached the higher age periods than for either of the other two colleges studied. But in view of the consistently lower death rate in Smith for every age period, there is suggested the possibility that the differences in the figures represent real differences in the vitality of the graduates of the three colleges studied. Table 2 presents a comparison of the specific death rates for the three colleges and for the other groups of women for which data are available:

TABLE 2

DEATH-RATE PER 1,000 WOMEN, VASSAR, WELLESLEY, AND SMITH ALUMNÆ, METROPOLITAN LIFE INSURANCE COMPANY—ORDINARY DEPARTMENT EXPERIENCE—1914-1916, NEW YORK CITY TEACHERS, 1907-1914, AND REGISTRATION AREA, 1910-1915.

Age period	Vassar Alumnæ	Wellesley Alumnæ	Smith Alumnæ	Ordinary Ins. Experience, M. L. I. Co.	N. Y. City Teachers	U. S. Reg. W. A. Area
20 to 24....	1.38	1.52	1.25	....	1.48	4.96
25 to 34....	3.25	2.56	2.58	3.02	2.98	6.10
35 to 44....	4.55	4.68	3.26	4.83	4.32	8.03
45 to 54....	8.54	5.41	3.54	9.16	9.84	12.58
55 to 64....	11.81	15.19	....	20.04	16.67	24.48

In this table special interest attaches to the figures for New York city teachers, taken from an investigation by Mr. George Buck on Teachers' Pensions. The death rates for all periods are found to be very much like those for college graduates. They are more in accordance with the rates for Vassar Alumnæ than for either of the other two colleges; the only appreciable difference between these two groups

Digitized by Google

being at the age period of 55 to 64 years. In the case of Wellesley the difference begins at a lower age period, 45 to 54 years; at the next age period, 55 to 64, the rate for Wellesley is but slightly less than that for New York teachers.

The study made of school teachers' mortality is the most comparable to that of college women of any special mortality experience which has been computed. The age distribution of school teachers and college women is much the same, the majority of them being in the period of 20 to 34 years of age. Teaching is the occupation of a large proportion of college women. In the study of college women's occupations, it was found that 58 percent of all graduates prior to war conditions had been engaged in teaching. It is to be expected that we should find college women and school teachers agreeing in such low rates of mortality. This low rate of mortality is thus commented upon in the Pension Study of New York City Employes, Report on the Pension Fund of the City of New York, Commission on Pension, 1916. Part II, p. 102: "The death rate as a whole is lower among women teachers than any other class except men teachers and members of the College of the City of New York Retirement Fund. The death rates for teachers were found to be the lowest existing in New York City service."

Table 3 presents for each age period from 20 to 64 the death rates of college women as computed from the combined mortality of Vassar, Wellesley and Smith graduates. The mortality experience of these women shows a very low rate for each age period in comparison with the general female population of the United States.

TABLE 3

DEATH-RATES PER 1,000 EXPOSED OF COLLEGE WOMEN—RATES FOR VASSAR, WELLESLEY, AND SMITH COLLEGES COMBINED

Age period	Years of life exposed	Deaths	Death-rate per 1,000 exposed
20 to 64—total...	204,295.50	662	3.24
20 to 24.....	38,633.59	53	1.37
25 to 34.....	102,018.37	283	2.77
35 to 44.....	45,239.63	188	4.15
45 to 54.....	14,968.48	95	6.35
55 to 64.....	3,435.43	43	12.52

The crude death rate for each college studied is also very low. In the case of Vassar, which had the greatest number of alumnæ in the higher age periods, the ages 20 to 69 are included, and give a crude rate for these ages of 4.16 per 1,000 exposed. Smith, which has too few alumnæ above the ages 20 to 59 to include any higher ages, gives a crude rate of 2.55; and Wellesley for the period 20 to 64 years has a rate of 3.14 per 1,000.

As we do not know what the causes of death for these college women are, we can only conjecture what some of the factors may be which result in such a favorable mortality. In the first place, they evidently were a highly selected group of women, with excellent health, to have been able to pass through four years of college. During these years they enjoyed an exceptionally good environment, and opportunities were afforded them for physical exercise, both through outdoor sports and gymnastics which are usually required of students during part of their college course. Physical and medical examinations given to all students result in the discovery of defects which can be remedied. Even in the earliest years of Vassar we find that very complete physical records of the students were taken. It is to be expected, too, that they would have learned under these unusually healthful conditions of life the proper adjustment to work, and to rest and amusement, which are considered important elements in the prolongation of life.

It is a generally accepted fact that classes well enough off economically to be able to provide themselves with adequate medical care and a good, healthful, sanitary environment can prolong their lives beyond those less fortunate. College women belong to a class that is fairly well-off economically. Of the women reporting their earnings in the "Census of College Women" referred to above, the median income in 1914 was $1,013. This was high in comparison with the earnings of women of the industrial classes for that year. Professor Irving Fisher, of Yale University, has emphasized the effect of economic conditions in these words: "That a well-to-do class, properly fed and clothed, and with opportunity for leisure, will be less susceptible to disease than a poverty-stricken class, ill-fed and overworked, has been repeatedly shown by statistics."

College women are not so much exposed to the causes of death incidental to childbearing as are other women. The census of Miss Van Kleeck shows that in 1915 there was married an average of about 50 percent of the classes graduating prior to 1900. For Vassar, the total proportion of those who had married in all classes through the year 1915 was 45.1 percent;

Digitized by Google

38.3 percent for Wellesley, and 44.5 percent for Smith. These figures show that less than one-half of college graduates are exposed to the hazards of childbirth, which is a much small proportion than among other women. The families borne by college graduates are also exceptionally small. It was found that they averaged but 2.1 children per family for all married graduates; and among married graduates in classes prior to 1890, whose families would be completed, the average number of children is also low, being 2.8. Between the ages of 15 and 45 years statistics show that more deaths among women are caused by hazards of child-bearing than by any other cause except tuberculosis. Many of these deaths are due to inadequate care or lack of proper medical attention—a condition which would rarely be found among college women.

Our results, which show a remarkably low mortality rate among college women, are therefore not surprising. The results obtained indicate how much saving in mortality can be accomplished through extending to other women of the country the advantages which these college women enjoy. The conditions among them may be set up as a standard for the rest—a goal to be attained. The effect on the death rate in the country at large would be tremendous if only half the difference were wiped out.

Abstracts

Ovarian Insufficiency, Hyperthyroidism and Tuberculosis. Sergent. (Gazzetta degli Ospedale e delle Cliniche, January 2, 1921.

The fact that hyperthyroidism and tuberculosis are both associated with the crises of sexual functions and that both are frequently co-existent, is a fact of great clinical importance according to Sergent. It is well to consider another clinical fact equally coincident, and that is the resemblance of the symptoms of hyperthyroidism in these cases to the symptoms so characteristic of the menopause, of the effects of castration and of ovarian insufficiency. In tuberculosis hyperthyroidism and ovarian insfficiency here may be the same symptoms of vaso-motor instability, of a labile pulse and temperature, sweats and hot flashes. This symptom complex occurring at puberty, menstruation, pregnancy, parturition and the menopause seems to point to some fundamental fault in the ovaries or the reproductive system which encourages the development of tuberculosis. Hyperthyroidism may initiate the manifestation of tuberculosis and exist for a time with no tuberculosis suggestions. Sergent reports three cases of hyperthyroidism of puberty which were diagnosed and treated as tuberculosis, but which were not associated with physical signs in the lungs and which made a good recovery under ovarian and anti-thyroid therapy. Another case of hyperthyroidism developing at the menopause was diagnosed as tuberculosis, and made a good recovery under ovarian and anti-thyroid treatment. Ovarian insufficiency, either as a primary fault in the ovaries or as a consequence of some fault farther back in the reproductive system, is being held more and more responsible for hyperthyroidism, and the detection of this fault and the correction of its etiological factor may some day come to be a feature of our tuberculosis treatment.

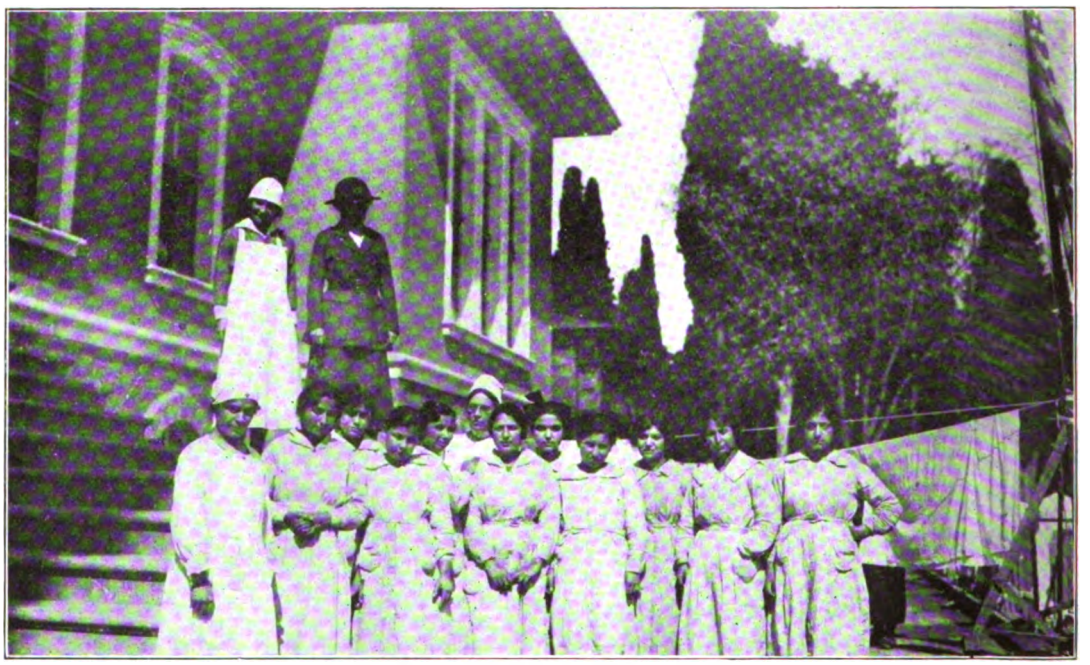
Migraine and Autohemotherapy. Durand. (Bull. General de Therapeutique. March, 1921.)

A case of migraine in a woman who had had the adnexa removed was associated with articaria occipital headache and ovarian insufficiency. The attacks of migraine became progressively more violent, until in July, 1910, the crises were accompanied by an outburst of urticaria. In February, 1920, these attacks were almost continuous. After a few prodromes the attack would break out in great violence and be associated with articaria, which would disappear during the crisis. On the 8th of May, 1920, during a violent attack, 10.00 ccm. of blood were withdrawn from a vein and immediately injected sub-cutaneously. The attack ceased. On the 12th of May, at the beginning of another attack, a second injection was made. The patient now went for fifteen days without another attack, when prodromes announced another crisis. This time 2 ccm. were sufficient to abort it. On the 9th of June and 21st this injection of 2 ccm. was made, and after that there were no more attacks until November, although little attention was paid to diet and the patient was at the seashore.

(In serum therapy and in autohemotherapy is there a means of getting endocrine stimuli to conditions otherwise not reached by them?)

Digitized by Google

REPORT OF THE AMERICAN WOMEN'S HOSPITALS MADE TO THE WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE ON MAY 2, 1921



American Women's Hospital at Ismid.

Serbian Work

A REPORT of the work of the American Women's Hospitals from July, 1919, to April, 1920, was made at the annual meeting of the Medical Women's National Association, which took place in New Orleans last year. The substance of this report was repeated at a later date at the annual meeting of the Woman's Medical Society of New York State. The following paragraph quoted from that report will serve as a connecting link between the years 1919-1920 and 1920-1921:

"Hospital buildings were assigned by the Serbian Government to the American Women's Hospitals at Veles and Pristina. Lack of transportation facilities have made it impossible for Dr. Gray to secure the supplies that had been promised her at Paris, and she was obliged to open the hospital at Veles with only fifteen beds. With patients waiting to enter the hospital, she scoured the country in an effort to find beds for them. This distressing

Digitized by Google

situation, however, has been relieved by a loan of beds from the Serbian Child Welfare Asscіation. These beds will be returned as soon as the supplies, including 300 beds, which Dr. Bonness brought from France to Serbia, can be delivered. Fortunately it was possible to care for dispensary cases, and as early as the latter part of January from 100 to 150 patients were being treated daily. A report, dated March 20th, shows that 8,628 cases had been treated."

Before leaving France for Serbia Dr. Hazel Bonness, who had been serving as directress for the American Women's Hospitals at Blerancourt, made all arrangements regarding the shipment of our hospital supplies. These hospital supplies, including ambulances and X-ray equipment, were shipped on the S. S. "Roye" from Marseilles. This vessel burned with her entire cargo in the harbor of Salonica, with the result that the work of the American Women's Hospitals in Serbia was handicapped for months. Indeed, it was necessary to fill ticks and care for patients on the floors of the hospitals because it was impossible to secure hospital furniture. These obstacles, however, only lent zest to the undertaking, and within a few months the equipment had been entirely replaced by the American Red Cross and other agencies, and the work in Serbia was in good running order.

In a general way the plan followed in France by the American Women's Hospitals and also by the American Red Cross was adopted in Serbia. Hospitals and dispensaries were developed at Pristina, Strumetza, Frisovitch, Prilep and Veles. In addition to this, work was conducted for brief periods at Guilian and Urassavitch.

In developing the Preventorium and Children's Hospital at Veles, the American Women's Hospitals departed from the plan generally followed in Europe by relief organizations. This hospital at the present time has 170 beds, and we are advised by impartial observers, as well as by our own people, that it has a high standing for efficiency and economy of administration. The purpose in the beginning was to establish a preventorium for children, but the necessities of the country made the place a children's hospital. We are surely justified in believing the flattering reports regarding this place, for the Serbian Government has offered to contribute 45,000 dinars monthly toward its support. From the beginning of the American Women's Hospitals' service in Serbia the Government has paid a stipend for military patients, but this definite sum that is pledged for the children's hospital at Veles came as a result of a rumor that the American Women's Hospitals might possibly withdraw from the country.

Extensive inquiries have been made, and, as far as we are able to ascertain, this is the first time that a foreign government has contributed to the support of relief work conducted by any group of American women. This is the highest possible tribute and strongest possible plea for the continuation of the American Women's Hospitals' service in Serbia.

It is important to remember, in this connection, that the American Red Cross has just established twelve new child welfare centers in Serbia, and it is quite likely that children requiring long periods of hospitalization or surgical treatment will be sent from these centers to our hospitals at Veles. This, however, has not yet been decided upon, but in view of the fact that the Red Cross has been very generous to the American Women's Hospitals in Serbia and that the children's hospital at Veles is the only children's hospital in the country, the chances are that this plan will be adopted.

A nurses' training school has been conducted at the Veles Hospital, and the results have been so encouraging that an American organization interested in medical education has offered to bring several of the members of this class to the United States for the purpose of completing their training.

Dr. Etta Gray has been in charge of the work in Serbia since July, 1919. Dr. Lilla Ridout and Dr. Mary Bercea, who also sailed in July, 1919, are still on duty, and Dr. Ridout has charge of the hospital and dispensary center at Prilep. Dr. Irene Tognizinni, who has charge of the hospital at Pristina, is also in her second year of service. These women are devoted to the work, and expect to remain indefinitely. Dr. May T. Stout, an oculist we sent over, has done a large number of eye operations with good results. Scientific care in eye cases has not been available, and for that reason a large number of neglected cases of cataract had accumulated, which Dr. Stout operated upon, in many instances restoring sight to people who had been blind for years. At the present time we have

Digitized by Google

Children with Potts Disease

two surgeons there—Dr. Gray, who is in charge of the service, and Dr. Margurite White, who was sent over quite recently. Dr. White served as a surgeon with the Malta Command of the British forces for three years during the war, and is therefore unusually well qualified to work in the Mediterranean country. When the American Women's Hospitals withdrew from active service in France, Dr. Hazel D. Bonness and Dr. Ellen Cover went to Serbia and have just finished a year's work there.

Seventeen American medical women and twelve nurses have been equipped, sent overseas and served with the American Women's Hospitals in Serbia. (A large number of Serbian women are also serving in the hospitals of A. W. H.)

In view of the fact that the Serbian Government, through its Ministry of Health, is carrying part of the expenses of the Veles Hospital, it has been suggested by members of the Board of American Women's Hospitals that one or more Serbian women physicians be found, if possible, and trained in our service in order that the work may be left in the hands of medical women of that country when the personnel of the American Women's Hospitals is withdrawn, in the hope and expectation that the Serbian Government will continue to carry on the work with the Serbian medical women in charge.

Some of the Serbian reports have been lost in the mails, but those received show that over 50,000 visits have been made to the dispensaries and 25,806 separate diagnoses have been made. More than 2,400 patients have been admitted to the hospitals, over 900 of which have been surgical cases.

Armenian Work

A report of the Armenian work was published in the April "Journal," but the following letter which was received from Dr. Elliott on May 2d brings the report of the Armenian work up to date:

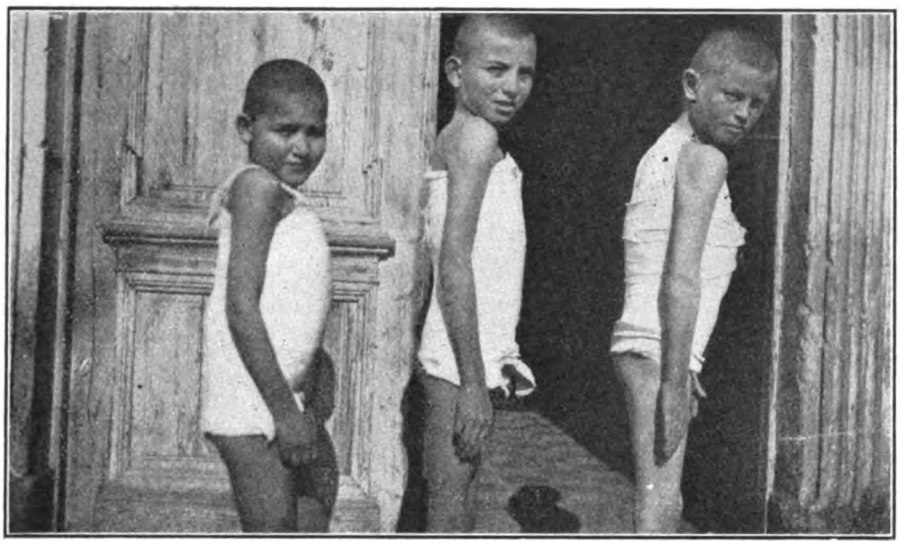
Ismid, April 9, 1921.

Dr. Esther Lovejoy, American Women's Hospitals, New York City.

Dear Doctor Lovejoy:

I have had a couple of anxious days. The Kemalists surrounded Bardezag yesterday, and so far we have been unable to get in communication with Mrs. Nickerson. Tonight, however, I am feeling somewhat better, as the Greeks have established a light system, and they have sent a message across the gulf, and I had the pleasure of seeing the reply flashed back across the waters which was interpreted to me as saying that she and Mr. Moffat (the only other American there) are safe. They promise me an answer for Mrs. Nickerson in the morning. We have heard the big guns booming all day yesterday, last night and today. We are all women here the last few days, so Mr. Kyser, from Derinj, came over this morning, and he and I attempted to land at the Bardezag dock, which is three and a half miles from the town. We hoped then to be able to get up to the town or send some word up. As we approached the landing, however, we could hear the crack, crack of the rifles on all sides, and the occasional "bang" of the big guns, and we could not persuade the boatmen to go any farther. The captain of the boat said, "I have three chil-

Digitized by Google



Children with Potts Disease in Plaster Casts

dren—why should I be shot?" So we laid off and listened to the battle for a while, came back and sent word to Constant asking for a destroyer to come down and land one or two of us over there. I don't know whether it will be necessary if we get a direct message from Mrs. Nickerson through the Greeks. They must have all the orphans down in the cellars, and it must be a great job to keep the poor little things under cover, and I do hope it will soon cease. It was a sight to see the fires burning last night. We counted seven villages burning all about Bardezag, and for three days now the refugees from these villages have been pouring in. At least two thousand new refugees are here now. One village came in and the place was not burned, so the Greek troops went out there with their machine guns, made trenches, and the refugees, thinking this a good protection, trailed back. The Turks, however, were not dismayed, attacked, and the people had to clear out again.

We have had three children in our preventorium, thank goodness. I was sending over six today and expected the place to be full in another week. Mrs. Nickerson will have her hands full with all the orphans there, but it will not be so bad as if she had fifty ill ones to take to the cellars.

I went to bed last night with a repetition of some of my fears of a year ago—namely, what will I do if fires are started in Ismid? How will I get my patients out of the hospital? Today I learn that the Greeks discovered a plan for the starting of fires in six places, one very near the hospital. Today Mr. Van Toor, our director, returned, and I was indeed pleased to see him.

I am sure all the Turks here are our friends, and our only worry is getting mixed in the melee and the care of those who are in it.

There are still two more days before mail goes out, and I will leave this to add further developments.

Sunday noon, April 10th.—A heavy fog today and we can see nothing of Bardezag, but we can hear the guns. A Greek soldier was just here to tell me that they were unable to get a direct message from Mrs. Nickerson last night, but they would try today. Things are not at their best just now. My two American nurses are sick in bed, and Mrs. Nickerson cut off from us by the Nationalists.

Your letter of March 16th came two days ago, and I note with great pleasure your success in raising funds. I shall be just as careful as I can be, nevertheless, to make every lira count. I hope you will feel, after reading my reports, that we are "getting our money's worth." Please remember, Doctor, that we are running a rather efficient training school, including a class in midwifery, which I consider the most important part of our work. We have had a N. E. R. publicity lady with us the last few days, and her enthusiasm for the work I am doing was quite inspiring. She took a number of pictures of my work, and I am going to ask her to let us use two or three of them.

I know Dr. Kassapian and told Dr. Graff, when I was in Constant, that I would like to use her in my work. She strikes me as being a woman of considerable ability for a native. I liked her work very much in her camp. If you glance at my first report of survey work in Constant, you will see that I spoke highly of her work, though I think I didn't mention her name. However, I found poor Dr. Zarochee here without a job and took her on without broaching the subject to Dr. Kassapian. If our work grows, and especially if I start anything in Adabazar, where Dr. Karohee came from, I will send her there and bring Dr. Kassapian here.

3:30 p. m. (same day)—Enclosed find copy of Mrs. Nickerson's letter just received, also a copy of Mr. Moffit's:

Mrs. Nickerson's Letter

April 8th.

Well, we are having lively times, bullets whistling!—one hit the roof of the house when we were on the balcony. They seem to be shoot-

Digitized by Google

Children with Potts Disease on Bradford Frames

ing from every side. The native teachers seem to be very much frightened. The people in the town moved down to the dock at day-break to go to Ismid. The Greeks won't allow them to do that, so this evening they moved back. The Greek gunboat fired about six shots over in the hills about 8:30 a. m., then steamed off towards Constant. Here we are high and dry! The report is that the Greeks were getting ready to burn out the Turks, and the Turks "beat 'em to it."

I expect you can see the towns burning. The Bardezag people know that is what will happen here, so they're scared! We hear big guns over your way, so deduce there must be something doing over there, too.

While the bullets were so thick we had the kiddies in, but now it has subsided for the time being. The citizens are armed; we saw many go up and join the Greeks' outposts this morning. They were fired on while going up the hill.

We can distinctly see the Turks directly in back of our buildings nearly to the top of the hill. They pass along a certain route, some leading horses, some mounted, but climbed down quickly under fire. Mr. Moffit saw one fall, rise partly, fall again and lie still. It is great having glasses.

Somebody suggested that they will come down back of us tonight and set things on fire. It's fun if nothing happens, and I can't think it will; I suppose I can look for the children as soon as quiet reigns. Please command me.

I am wondering if the road to Derinje is safe and if we will get mail just the same!

I just went out to listen to operations that seemed to have a fresh start, and "bang" went a gun seemingly right at hand and the bullet came whistling right by me.

7:30 p. m.—The report is that the Greeks are going to place big guns here to our right and give it to the Turks tomorrow.

8 a. m., April 9th.—I slept partly from 9 until 12, then Mr. Moffit laid down. Many Turks killed at the dock. Heavy guns began at 4 a. m. We are all right. The Greeks seem to have things well in hand. I'm telling you all this; you may know more than we do. Everybody on the alert. The children seem happy.

6:30 p. m.—Mr. M. went to the Greek commander this morning, and one of his men took these letters to the dock. He brought them back just now, saying that he could not send them, but will try tomorrow.

It has been a mild day—bullets flying through the yards, the Greeks firing from behind the wall directly in front of the boys' building, the Turks answering just a short way up the hill. One Greek wounded that we saw. The big gun down across the waddy has been shelling the place where we saw the Turks yesterday. For an hour it has been quiet; that has gotten to mean increased action later. There is one place on the road to the dock where everything that passes is fired on.

We were glad to see the gunboat come back, though I don't think there is danger to us, except that if the Turks do not come in they will likely burn the place. I packed my trunk today and brought it to Mr. Kingsbury's house, thinking it the safest from fire. Mr. M. thought it best. The lovely big flag is getting torn in the wind. The Greeks are showing splendid fighting qualities.

This morning it was lovely at dawn; you should hear the birds. For a time all was still, and it was hard to realize that death and destruction lurked in the peaceful quiet of these heavenly hills.

Mr. M. got up about 4:30 when he first heard the big guns, and we had a fire. Our fancy turned to good old Java, hot and fragrant; no sooner said than done. We made some on the little stove—it did lend us cheer. It isn't nice, is it Mary Jane, to hear, right at one's back door, the quick staccato of machine guns burst out of the stillness of the night? Especially when you sit alone.

It is so cold tonight, I'm so sorry for the poor soldiers.

The Armenians are armed.

Digitized by Google

These children have recovered and are ready to go home

Nobody knows what will happen tonight—the worst fear is fire. Mr. M. is writing a full account to you all; I am just writing along as things happen. He got some pictures today—has a wonderful camera.

They can tell us nothing of when we can get messages through.

A man is taking our mail just now. We are all right. Several heavy guns this morning, otherwise all is quiet.

French Work

During the war the American Women's Hospitals contributed $5,000 toward a dispensary service conducted at Levallois-Perret, in the Paris district. The rest of the fund available for France, together with something over $16,000 donated by the National Suffrage Association, is to be used in the construction of a dispensary at the Residence Social, this same health and social center on the outskirts of Paris. On account of the unstable condition of money, material and labor, the building of this dispensary has been delayed, but Mademoiselle Bassot, who is in charge of this work, has reported recently that the work will begin very shortly. This is a very important center. The directress has been in America studying American methods, and it is felt by the members of the Board that this dispensary will be a fitting memorial to the work of American women physicians in France.

The Tooth Brush Drill

Digitized by Google

INTERESTING LONDON LETTER

[From our own Correspondent]

MEDICAL WOMEN IN GREAT BRITAIN

.. London, March 29, 1921.

Medical Women in Great Britain.—Women are forging ahead in every branch of endeavor, and perhaps especially so in that of medicine. This comparatively new departure has been given a great impetus by the war, when women perforce had to follow many of the pursuits hitherto the province of men, and, on the whole, adapted themselves to the circumstances well, and proved to some extent, at least, that Sir Almroth Wright was wrong when he declared that the physiological disabilities of women largely prevented them from filling men's rôles. In Great Britain women have showed themselves capable of doing men's work and doing it efficiently. In medicine, during the past few years, women have been particularly prominent. The introduction here of a Ministry of Health has greatly widened the scope of women's medical opportunities, as such work as falls to the lot of officials of a department of this kind is peculiarly well suited to them. For office work, for detail work and for inspectorships of factories, workshops and so on, medical women have exhibited a special predilection; and according to the views of many authorities—the great majority of these, by the way, being men—their abilities and capacities are limited to occupations of this kind. But these opinions appear also to be disproved, as several women have shown in research work—for example, Miss Marguerite Chick. While in clinical work many of them, at any rate, seem to be able to compete with men successfully on equal terms. A conspicuous instance of this kind may be cited in the person of Dr. A. Louise McIlroy. After a remarkably distinguished career as a medical student at Glasgow University, and after filling with the highest credit important posts in clinical medicine and research work at that university, almost at the outbreak of war, Dr. McIlroy joined the Scottish Women's Unit, the head of which was the late Dr. Elsie Inglis. Dr. McIlroy served throughout the war, mainly in the near Eastern theatre, was surgeon in charge of the hospital in Salonika, and later of British Hospital in Constantinople, in which her work was entirely obstetrical and gynecological. Some few weeks ago Dr. McIlroy read an excellent paper before the Obstetrical and Gynecological Section of the Royal Society of Medicine in London on the "Value of Morphia in Labor," basing her views largely on the result of her experiences in Constantinople. Dr. McIlroy has gained recently, in open competition, the post of Director of the Obstetrical and Gynecological Unit, a newly created department of the Royal Free Hospital, London.

In a few of the London medical schools women students are not admitted; in others their number is limited. This action, however, must not be taken to wholly signify that medical men fear the competition of women, although the fear may have exerted a certain amount of influence. The cause is rather to be found in the fact that competition in medicine is extremely severe at the present time; this is to say, that all the medical schools of London are overcrowded with students, and that many more are clamoring for admission. Therefore, in self-defence, those in authority and who were thinking of the future of medicine, deemed it advisable to draw the line. It may be pointed out that whenever women medical students take part in examinations they acquit themselves well indeed. So far as this form of testing knowledge is concerned they have shown themselves superior to men. They are more persevering, and in a general way do not concern themselves so much with the frivolities of life.

The Royal Free Hospital and its medical school is the mecca of female medical students in this country. It is restricted to women; the internes are women, and the majority of the staff are women. One is consequently enabled to judge with fair accuracy of the capacity of the female to perform the service of a good-sized general hospital. The judgment, then, of those qualified to speak with authority is to the effect that women are equal to men in most respects in doing the work of a general hospital. In the past the capacities of women from the medical standpoint has been too greatly depreciated, and this is

Digitized by Google

especially the case with regard to their physiological disabilities. Nevertheless, it may be said—of course not dogmatically or definitely, our experience is too short to speak or write in such a way—that the woman doctor is best fitted for work connected with the Ministry of Health, infant welfare work, inspection of factories and research work. They have shown themselves able to do any kind of medical or surgical work; in fact, some have exhibited brilliancy in all branches of medicine and surgery, but the majority seem to be well adapted for medical work which does not fall within the scope of active practice.

Serbian Medical Students for London.—According to the Bulletin of the Fellowship of Medicine and Post-Graduate Medical Association of March 12th, last, a movement in medical teaching in London has come into being which may have far-reaching effects. It is worthy of note for several reasons, and not least for the influence it will have in adding to the attraction of London as a teaching centre. The scheme alluded to is that for raising a fund to endow one or more scholarships for Serbian girls in connection with the London School of Medicine for Women and the Royal Free Hospital. The sponsors for this scheme are Sir Willoughby Dickenson; Dr. Mary Scharlieb, chairman of the fund; Dr. Dickenson Berry, the honorary secretary, and Mrs. Carrington Wilde. One of its chief objects is to serve as a memorial to the work of British medical women in Serbia, and as a means of helping to maintain the cordial feelings between Britons and Serbians, engendered by and following a close intercourse during the war. There is only one condition imposed under the scheme—namely, that the successful candidates will undertake to return, after qualification, to their own country for the purpose of practicing their profession. A medical career, it is stated, has since the war appealed very strongly to Serbian women of the better classes, and in holding out to them a friendly hand, by which the ambition can become possible to some of them, the British will be doing themselves a good turn as well as them. As a means for extending British medical teaching in a country little known to the British, and tending also to promote a closer international relationship, it is hoped to gain a twofold object by making a success of the scheme.

Medical Schools of Europe Overcrowded.—Recent reports show that the medical schools of the continent of Europe are just as much overcrowded with students as is the case in Great Britain. For instance, the university city of Prague has two schools, the number of students amounting to 5,000; at the Czech school there are 3,000, and at the German, 2,000. The students also include those who hail from diverse countries, as Poland, Russia, Jugoslavia, Hungary and Austria.

Death Rate of Infants.—In the British House of Commons, recently, Mr. Trevelyan Thomson asked the Minister of Health how the death-rate of infants under one year of age during 1920 compared with the recent preceding years, and whether, as a part of promoting public economy, he proposed to reduce the number of infant welfare centres and maternity beds available for this service. Dr. Addison, the Minister of Health, replied that the death-rate of infants under one year of age per 1,000 births during the years 1914 to 1920 was as follows: 1914, 104.62; 1915, 109.72; 1916, 91.22; 1917, 96.5; 1918, 97.16; 1919, 89.13; and 1920, 80. The figure for 1920, which is subject to verification, was the lowest yet recorded. The answer to the second part of the question was in the negative. The manner in which the death-rate of infants in England and Wales under one year of age and indeed of young children under five years of age has been reduced is remarkable, and only shows what can be done in this direction. Of the deaths registered in 1919, only 12.2 percent were those of infants under the age of one year. So recently as 1901-10 the percentage was no less than 22.6. Infant mortality, in terms of total births, was equal to 89 per 1,000, and was 15.2 percent below the average in the ten years immediately preceding. Moreover, the increased mortality of the first four weeks after birth is now shown to be limited to the first two, the third and fourth having remained almost stationary. Mortality in the second year of life was lower in 1919 than in any other of the past few years, and therefore almost certainly the lowest yet experienced, but at each of the succeeding years, 2-3, 3-4 and 4-5, lower rates were recorded in other years.

With regard to maternity homes and centres, there is a lamentable lack of such accommodation in this country. As a matter of fact, obstetrical practice is in a

Digitized by Google

backward condition here. The training of students in the important branch of surgery is by no means up to the mark; and, as said before, the facilities for carrying it out are woefully inadequate and defective. With respect to training, conditions promise to be better in the future. Obstetrical units have been formed in some of the hospitals, notably in the Royal Free Hospital, referred to previously. In this latter institution, under the able guidance of Dr. Louise McIroy, girl medical students will be taught how to conduct a confinement in the most scientific manner.

The practice of obstetrics would seem to fall especially within a woman's province, and it is therefore in a high degree encouraging to know that ere long there will be many medical women well versed in the technic and conduct in general of this branch of surgery. But although it appears probable that in a comparatively short space of time there will be a supply of skilled obstetricians, these will be greatly handicapped and a great deal of their skill rendered nugatory unless adequate and proper accommodation is provided for lying-in women. It is now almost universally allowed that a private house is not adapted for the carrying out of a very important surgical procedure as is a labor. Especially is this so in the case of the poor and of the middle classes in straightened circumstances. There is no need, however, to lay stress on this point—it is too obvious to require any elaboration. The medical profession here are quite aware that a very large number of maternity institutions must be founded if children are to be brought into the world in a scientific and proper manner, and if the health of their mothers is not to be seriously impaired by reason of unskilful treatment and of unhygienic conditions before, during and for a sufficient period after labor. The Ministry of Health recognizes the gravity of the situation, and the chief medical adviser to this department, Sir George Newman, is taking steps to have introduced into all parts of the country maternity homes and centres.

In passant, it may be said that Great Britain lags behind America in this respect, as while the cities of America—New York and Chicago in particular—possess many of these institutions—that is, for the well-to-do—the cities of this country are singularly lacking in this essential provision. There is little maternity accommodation in either country for the poor.

AGAIN IN THE RUNNING.*

By CLELIA DUEL MOSHER, M.D.,
Stanford University, California

A Series of Sketches from Observations Made by the Author During Her Service in France.

CREATION is the privilege of the few. Of these there is the mother who goes down to the gates of death and brings back in her arms the longed for child; the poet who fixes the transient great emotion in undying verse; the musician whose harmonies will sing their way into the lives of men so long as time shall last; the writer whose golden words bring to the young a glimpse of the infinite and incite to greater deeds; and among the artists especially are those miracle workers who make new faces for the living dead and give them back to the world and life.

But there are others whose work is thus creative, and who all unconscious of its greatness and wonder, unnoticed and unsung, do immortal deeds. In that army of mercy, your American Red Cross which served across the sea, there were here and there those whose work was thus creative. Among these certainly was the big, ruddy, round-faced American, who created anew many of those who were down and out and put them again in the running.

A gentle faced old man in threadbare black stood at the door. He was slender, with snowy white hair and a short narrow white moustache, which ran down past the corners of his mouth. He embodied the calm and quiet of the peaceful offices where he worked. He would slide back the bolt which lifted the latch of the door, and with a courtly wave of his hand refer you and your business to the information desk, responding to your "Bonjour" in an almost inaudible voice. In spite of his age he was thus able to earn something to help the little family left dependent by the soldier son fighting at the front.

On the floor below, the man at the door was almost the counterpart of his old brother; he had the same build, the same kind of white hair, the same sort of short narrow white moustache which ran down past the corners of his mouth; and the threadbare black frock coat was of the same vintage as that worn by the door keeper in the peaceful offices above. But the blue eyes of this little old man were often full of trouble. As the day went on in that hectic office where not only came the great, the near great, but also the

* Copyright, 1921, by C. D. Mosher, M.D.

Digitized by Google

down and out, making an endless procession from morning until night, two spots of bright color would burn in his pale old face. He would respond with a faint smile to my "Bonjour, Monsieur," but it was a faint response as if the fires of life burned low.

Then came the day when the notice was posted on his door that all members of the staff leaving even for an hour or so were requested to record their whereabouts; and each one was tagged and numbered; many packed and sent to places of safety their luggage. Morning after morning with maddening reiteration we read in the papers "and our troops retired to positions previously prepared." The sound of the guns at the front became more audible each night; the German Avions in the early part of the night kept us from our rest, and "Big Bertha" awoke us at break of day, so that we were short on sleep. Even I, with all of my optimism, had to make a greater effort to keep the cheerful ring in my voice, and consciously remember to smile more hopefully as I greeted the little old door keeper in passing.

"Better luck to-morrow, Monsieur! the tide will soon turn." And then for the moment the cloud in the faded old eyes would lighten and he would reply, "Bonjour, Madame, let us so hope!" But when one dark day followed another and the best news that we had was only that the allied armies were not nearer Paris than they had been the day before, it was not easy to say convincingly—

"Bonjour, Monsieur, the news is better this morning; to-morrow it will be the enemy who moves back."

"Bonjour, Madame," and with a shake of his old white head he would add, "Mais Oui, Madame, let us hope!"

Alas, before the turning of the tide the little old man no longer stood at the door. The flickering flame of his life was quenched and he had passed beyond the days of uncertainty and waiting to where he could see the tri-color of his beloved France with the colors of the allies advancing irristibly as they drove the invaders from the soil of his native land.

In the Place de la Concorde, from those early times when the whole of the American Red Cross was housed in that one great building to the day when this enormous relief machine had spread out into many parts of Paris, and even after it had reached its full stature and was again under one roof in the great Hotel Regina, the same gray-haired man held sway over the little chasseurs of the Red Cross. How he managed those little imps, the boy scouts, no one knows, but he kept them in order, and they were almost the only normally restless, active litle boys I saw in France.

He was a melancholy faced Frenchman with smooth gray hair, which had once been black; his gray eyes were faded and had dark rings under them; his complexion was sallow. He was a big man, but lean as though there had been times when bread was none too plenty. He was always immaculately groomed, and his smooth gray hair and his threadbare coat looked as if both had been just brushed.

It was the day that "Big Bertha" began the bombardment of Paris. I was in my place at the Poste de Secours waiting for we knew not what, and chafing at the inaction; I could not go on with my usual work, and here it meant only waiting for the possible emergency, while the other members of the station came and went. This door keeper came in the intervals to pour out his troubles.

"I carried my little girl to the abri this morning and she is with my wife, but I do not like to be away at such a time. But voila, one must eat, so I come to work! I will go to them at midday." Then in another interval he came again to tell me of the man at the outer door.

"He has more than sixty years, and therefore he is allowed but two hundred grammes of bread. He gets not much else, and it is not enough. If Madame has extra bread tickets, he needs more to eat."

I saw him first at the Gare de Lyon the night we started with the convoy of sixty anemic children to go from Paris to Evian. There he was—a fussy little old white haired man and his youngish wife; between them, clinging to their hands was their little black eyed, black haired, melancholy, nervous, little girl.

"Oh, Madame, it is the first time my little girl has ever been separated from us! You will have a special care for her!"

One day not long after, as I crossed the inner court of one of the great buildings, I was stopped by an eager old voice,

"Oh, Madame, Madame, one moment, please! My little girl has written to us, she is sad, she longs to see us," and there were tears in his pale old eyes, "but it is better that she stays there! I hope that she will soon be content."

Digitized by Google

A week later I was again stopped as I hurried by and the old door keeper greeted me with:

"Oh Madame, my little girl has written us a letter; she is well, she is gay; she has gained a demi-kilo; she plays with the other children. We are most thankful to you!" and with difficulty I tore myself away from his voluble thanks.

He was the most down looking boy, though a man in size, that I had ever seen! As he stood there at the door in the bureau, he was lean, far too lean. His complexion was lifeless, his lank dark hair was straight and thin. His empty coat sleeve was tucked into his coat pocket, the prevailing fashion for the one-armed man. His unattractive face was made still more so by two hideous scars which crossed his cheek and forehead; there was no life in his eyes. It was the face of one who lives and yet living was dead. The past was over, the present a miserable dream, the future,—there was none for such as he.

Time passed. One felt less inclined to look the other way to avoid seeing this melancholy thing which had been a boy, a young man. A subtle change had come over him: he had not increased in weight; his complexion was still without color; but it was less like the dead; and the eyes were more alive! One day there suddenly dawned upon you the full significance of the change: as he wildly grabbed with his one arm at the teasing little khaki clad chasseur, while from the corner of his distorted mouth hung a cigarette, one saw the light of the game shining in his eyes. He was in the running again, he was a young man, a wage earner with his life before him!

But of all the wrecks strewn along the pathway of the great war, none could have been much worse than the man who sat at the entrance of one of the great buildings. He was tall, lean to a degree of emaciation that made one think of a death's head. His parchment-like skin was stretched over his small featured bony face. His eyes were black, but they looked dully out of their cavernous sockets; his scanty lifeless hair was but a fringe around his prematurely bald head; his claw-like hands hung from his loose coat sleeves. He sat, day after day, behind his little table, more dead than alive, never moving, answering dully the careless questions put to him by the passers by. He had no work, though he had sought employment until his failing strength no longer was great enough to keep him going; he was too proud to beg! When the little girl had consumed the last of their scanty food and he and his wife had been without anything to eat for some time, in their one small room they laid down together to die. But the little girl cried—that they could not bear; so the mother roused herself; with great effort she reached the Red Cross dispensary and then, a new day dawned.

A job was made for him to suit his feeble strength and the money from someone's pocket supplied the family larder until pay day.

Before many weeks the active, slender man in his blue smock, mopping the floor in the great entrance hall, attracted no particular attention as one passed. He was back in the race again, a man among men once more.

Many must have wondered idly why such men, and especially this death's head of a man, had been stationed at the doors. If anyone could have gotten the ear of that ruddy, round faced American who in the multiplicity of his duties had charge of the Red Cross buildings and employees, he would have probably have answered the question something like this:

"Some tender hearted woman had found this one; another had discovered that case of misery; that other was down and out and needed work; this one was going to the bad because there was no place for one mutilated as he was; that death's head of a man—oh, he just needed work."

The secret of it all was that this ruddy round faced American, in spite of his many duties, found time to listen to these needs, and if suitable jobs did not exist he made them.

So when he appeared with the coveted red ribbon of the Legion of Honor in his button hole, all who knew rejoiced; while he went his busy, cheerful way totally unconscious that anyone ever gave this incidental work a second thought. He would have laughed had anyone suggested that he had done immortal deeds in taking these down-and-outs, giving them work and thus putting them again in the running.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to
MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

A MEDICAL WOMAN'S PRESS

We call special attention to our very interesting London letter. It treats of a variety of subjects—"Medical Women in Great Britain," "Serbian Medical Students for London," "Medical Schools of Europe Overcrowded," etc. We have made arrangements for a series of letters from the same gifted writer covering the work of medical women on the continent. It is hoped in time to make the "Journal" what it ought to be—a medium for the exchange of ideas between medical women in all parts of the world—an international as well as a national institution; and this can be done if the proper support be given to it by the medical women of this country.

It is the only journal published exclusively for medical women; and while it commands the respect of its clientele because of its high standards and mechanical excellence, the united support of medical women could make of it a superior publication capable of wielding the greatest influence in support of projects dear to the hearts of medical women which without publicity could not be achieved. A press devoted to the aims of any profession is imperative to the upholding of the standards and ideals of that profession.

ANNUAL MEETING OF THE MEDICAL WOMEN'S NATIONAL ASS'N

June 10-11, 1921, Boston, Mass.

Don't forget to plan for the annual meeting of the Medical Women's National Association, to be held in Boston following the sessions of the A. M. A. on June 10-11th.

Headquarters at 85 Newbury Street, where an information booth and executive offices will be maintained.

Place of meetings: New England Women's Club Rooms, 585 Boyston Street (at Copley Square).

Annual dinner at Hotel Vendome, Saturday evening, June 11th, at 6:30, for $3.50 a plate.

Accommodations in houses of the vicinty reserved for our exclusive use can be secured for $2.50 a night with breakfast at fifty cents. (It has been found necessary to raise the earlier quotation a little.)

Reservations should be made (as early as possible to be sure of accommodation) through Dr. Edith Hale Swift, 110 Bay State Road, Boston, chairman Committee on Entertainment.

PROGRAM OF ANNUAL MEETING OF MEDICAL WOMEN'S NATIONAL ASSOCIATION

To be Held at Boston, Mass., June 10 and 11, 1921

June 10, 2:30 p. m.—Meeting of Board of Councillors, 85 Newberry Street.

June 10, 8:00 p. m.—Meeting of the Association at New England Women's Club, 585 Boylston Street.

Business

1. Report of the President and Board of Councillors.
2. Report of Recording Secretary-Treasurer.
3. Reports of Committees.
   - (a) Organization.
   - (b) American Women's Hospitals (Medical Service Committee).
   - (c) Opportunities for Women.
   - (d) Health Education.
4. Report of Nominating Committee.
5. Appointment of Committee on Resolutions and Referring of Resolutions.

June 11th, 10 a. m.

6. Unfinished Business referred by Councillors.
7. Unfinished Business referred by Recording Secretary-Treasurer.
8. Correspondence introduced by Corresponding Secretary.

Digitized by Google

9. New Business introduced by Councillors.
   (a) Amendments to Constitution and By-laws.
   (b) Reports of Affiliated Organizations: Women's Foundation for Health, Women's Advisory Council.
10. New Business introduced by members.
11. Election of Officers.
12. Report of Committee on Resolutions.
13. Installation of New Officers.

Adjournment

June 11, 7:00 p. m.—Dinner at Hotel Vendome.

Make your reservations for room and for dinner tickets through Dr. Edith Hale Swift, 110 Bay State Road, Boston.

Do it early to avoid disappointment.

Room, $2.50 a night; breakfast, 50c.

Dinner, $3.50 per cover.

BANQUET FOR VISITING MEDICAL WOMEN OF THE A. M. A.

On Wednesday, June 8, 1921, the medical women of Boston have arranged for a banquet for the medical women attending the A. M. A. at the Hotel Vendome, at 6 p. m. Tickets, $3. In order to facilitate arrangements, those wishing to attend are requested to notify Dr. Florence W. Duckering, 520 Beacon Street, Boston, Mass., on or before June 1st.

Tickets may be obtained at the registration booth at headquarters on June 6th.

OFFICIAL NOTICE

The Medical Women's National Association will hold its 1921 meeting in Boston, Mass., on June 11th and 12th, following the regular meeting of the American Medical Association, and the time set for the annual dinner of the Medical Women's National Association is Friday, June 11, 1921.

All members who contemplate submitting resolutions to the Medical Women's National Association at this meeting are requested to send in their memoranda to the Councillors before June 10th.

L. ROSA H. GANTT, M. D.,
Recording Secretary.

ISABELLE THOMPSON SMART, M.D.,
Corresponding Secretary.

AMERICAN PARTICIPATION IN INTERNATIONAL CHILD WELFARE CONFERENCE DESIRED

Plans are being completed, according to information received by the U. S. Department of Labor, through the Children's Bureau, for an International Conference of Child Welfare to be held in Brussels under the auspices of the Belgian Government, July 18-21, 1921. American participation in the Conference is much desired by the Belgian Committee on Organization.

The object of the Conference is the discussion of a series of questions dealing with the physical and moral welfare of children and the rearing of infants. The discussion will proceed under four general heads: (1) Juvenile Delinquents and Juvenile Courts; (2) Abnormal Children; (3) Social Hygiene of Childhood; and (4) War Orphans. Foreign and Belgian experts will prepare reports on child welfare work in their own countries with special reference to the questions on the list. These reports will be printed and distributed in advance to all who join the Conference.

It is hoped also to discuss at the Conference the question of creating an international organization for child welfare. Steps were taken toward the formation of such an organization following the first International Conference of Child Welfare in 1913, held also in Brussels, but the war prevented the carrying out of the plan.

ANNOUNCEMENT BY MEDICAL WOMEN'S NATIONAL SOCIETY COMMITTEE ON ORGANIZATION

Middletown, Conn., May 6, 1921.

Dear Doctor:

"Your presence is requested at the wedding" of the Kansas Medical Women's State Convention with the Medical Women's National, at 85 Newbury Street, Boston, June 10th.

Plans must be made for the affiliation of this, our first charter member society, and others which will come in later, we hope. We must also plan for really-worth-while activities in each State, and take up the question of our relations with the International Women's Medical Association. Please bring ideas.

Yours very cordially,

KATE C. MEAD, Chairman.

Digitized by Google

FIFTEENTH ANNUAL MEETING

Women's Medical Society of New York State

THE Fifteenth Annual Meeting of the Women's Medical Society of New York State was held in Brooklyn on May 2d.

Dr. Lois Gannett, the president, called the meeting to order, and asked Dr. Eliza M. Mosher to make the invocation.

Dr. Harriet Doane, of Fulton, read the minutes of the last meeting, also the report of the treasurer, Elizabeth Shrimpton, who, because of illness, was unable to be present. The balance in the treasury, as reported, was sufficient to defray the expenses incurred during the year, and with the additional dues of members enough was left to begin the work of another year.

The Society heard with sadness of the very serious illness of our always active and valued member, Dr. Evelyn Ballentine, of Rochester. The privilege was asked, and granted, of tendering to Dr. Ballentine the sympathy and love of the society by letter, accompanied by flowers. The secretary was also asked to convey the sympathy of the society and thanks for her service to the treasurer, Dr. Elizabeth Shrimpton, of Syracuse.

Among the reports of standing committees, that from Dr. Mary T. Greene, of Castile, on the "Medical Education of Women," was read. The action taken upon it was of such paramount importance that it will be reported in full in an early issue.

As Dr. Josephhine Kenyon could not be present at the afternoon session, she was given the floor at this time, and her presentation of the plan and scope of the "Women's Foundation of Health" was most interesting.

Dr. Louise Hurrell, of Rochester, read a paper, entitled "Medical Facts Culled from Fifteen Years' Practice," which was very suggestive.

Thirty-seven members ate luncheon at a nearby hotel, between sessions, and had a really social hour together.

The afternoon session began as usual with the election of officers for the ensuing year. As no names were added from the floor, the secretary was asked to cast the deciding vote. Dr. Esther Parker, of Ithica, the newly appointed president, was escorted to the platform and made a graceful speech of acceptance. Dr. Gannett, whose address had been delayed by the business of the morning session, gave a very interesting and suggestive paper on "Some Cases of Epilepsy and Treatment."

Dr. Richard Kevin, president of the State Medical Society, was then introduced. He extended a welcome to the society, and "was glad so many of the women members of the larger State Society would be present at its sessions." He prophesied that this would be one of the most important meetings in the history of the State Society.

The most thrilling paper of the day was that of Dr. Esther Lovejoy, "A Report of the American Women's Hospitals." In it she told of the really wonderful work of our medical women in France, Serbia and the Near East during the past year.

We could almost hear the whizz of bullets and see the flames mount up from burning villages in Turkey as we listened to excerpts from Dr. Mabel Elliott's letters telling of the dreadful fighting around her hospital. We could not feel otherwise than proud of the work the medical women selected, sent out and supported through the continued efforts of this committee of the Medical Women's National Association.

The high-grade mental defectives, so admirably described by Dr. Alice Bennett, of Buffalo, brought to mind similar cases, seen by all present, yet never classified—the irresponsible men and women who make life miserable for their families and their neighbors.

Dr. Edith R. Spaulding, formerly resident physician at the Massachusetts State Reformatory for Girls, discussed the papers read with her customary clearness and force.

Dr. Carro Croft, who was to give a paper on "Public Health Educational Work," was absent. Dr. Florence Sherman, of Albany, discussed the subject briefly.

After giving attention to unfinished business the meeting adjourned.

The annual banquet was given at the Hotel Bossert on the evening following the meeting. More than fifty members of the society and their friends were served to a wonderful repast.

The toastmaster was Dr. Elizabeth Thelburg, the president of the last annual meeting. Her introduction of the speakers was done in her own graceful style, and never before at a banquet of the society were more amusing stories told. Dr. Gannett started the fun, as she always does on such occasions, and each speaker was "reminded by the last" of some story (which of course she had planned beforehand to

Digitized by Google

tell) appropriate to the occasion. It would be worse than futile to attempt to reproduce the speeches. They were not improved upon, some said, by the noted after-dinner speakers at the Greater Society Banquet given in the Twenty-third Regiment Armory, when eight hundred members of the State Society and their friends sat down together.

The following officers were elected:

President—Esther Parker, M.D., Ithaca, N. Y.
First Vice-President—Sarah Pierson, M.D., Rochester, N. Y.
Second Vice-President—
Ethel Doty Brown, M.D., New York City
Third Vice-President—Clara March, M.D., Buffalo, N. Y.
Secretary—Mary Hurlburt, M.D., Lockport, N. Y.
Treasurer—Catherine Munhall, M.D., Buffalo, N. Y.

(Committees)

Scientific Program—
Maud Frye, M.D., Buffalo, N. Y.
Florence Sherman, M.D., Albany, N. Y.
Marie Chard, M.D., New York City

Legislative—
Emily Dunning Barringer, M.D., New York City
Jennie H. Harris, M.D., Tonawanda, N. Y.
Harriet M. Doane, M.D., Fulton, N. Y.

Public Health—
Lavina Davis, M.D., Oneida, N. Y.
Josephine S. Baker, M.D., New York City
Harriet B. Clark, M.D., Albany, N. Y.

Medical Education of Women—
Mary T. Greene, M.D., Castile, N. Y.
Eliza Mosher, M.D., Brooklyn, N. Y.
Marion Craig Potter, M.D., Rochester, N. Y.

Committee on Arrangements to be named by the President.

Councillors—
First District—Mary Dunning Rose, M.D., New York City
Second District—Mary E. Potter, M.D., Brooklyn, N. Y.
Third District—Helena B. Pierson, M.D., Hudson, N. Y.
Fourth District—Mary E. Bryan, M.D., Ogdensburg, N. Y.
Fifth District—Adelaide Dutcher, M.D., Syracuse, N. Y.
Sixth District—Anna M. Stuart, M.D., Elmira, N. Y.
Seventh District—C. Anna Brown, M.D., Seneca Falls, N. Y.
Eighth District—Helene J. Kuhlman, Buffalo, N. Y.

A report on housing conditions in the United States, with special reference to the large cities, has been issued by the Senate Committee on Reconstruction and Production, of which Senator Calder is chairman. The principal affirmative recommendations of this document are given in the Survey, April 2d.

Abstracts from Foreign Journals

By MARY H. LAPHAM,
Highlands, N. C.

The Cutaneous Reactions to Tuberculin Injections During Menstruation and After Ovariotomy. Coulaud. Bull. et Mem. d. l. Soc. Med. des Hop. de Paris. February 17, 1921.

The cutaneous reactions to tuberculin may be positive in women during the intermenstrual period and then just before or on the first two days of menstruation, or at the time when it is due, but does not appear, these reactions may become very indefinite or absent. A negative reaction during the first day of menstruation was in two cases followed by a positive reaction in eight days. In a third case the reaction at the time menstruation was due was negative, but fifteen days later became positive, although the menses were still delayed. In five cases of exophthalmic goiter giving pronounced positive reactions, two cases responded very feebly during the first two days of menstruation. In sixty cases of practically apyretic tuberculosis the reactions were much weaker at the beginning of menstruation. In other cases the reactions were delayed for 24 to 48 hours. In a fourth case a negative reaction at the time menstruation was due was reactivated when it appeared six days later, and on the eighth day at the end of the menstrual phase became very conspicuous. After various kinds of operations the cutaneous reactions were negative in about 19 percent. After ovariotomy they were 44 percent, and after bilateral ovariotomy they were over 50 percent. It seems evident enough that the lack of ovarian stimuli may coincide with a lack of reaction to tuberculin and with a state of lessened resistance and lowered immunity. Clinically the conditions characterized by lessened ovarian functions, such as puberty, menstruation, pregnancy, parturition and the menopause, correspond to the periods most closely associated with the manifestation of tuberculosis. Sometimes menstruation, like delivery, constitutes a veritable complication in tuberculosis. It is not only that there is a rise in temperature which may be regarded as simply an exaggeration of physiological processes, but there may be actual extensions of the tuberculous processes constituting a threatening danger to the lungs. In some women each menstrual period extends the tuberculous lesions. The menopause is frequently a critical period

Digitized by Google

for the manifestation of tuberculosis. A chronic condition may become acute, and in many instances women apparently hitherto immune to tuberculosis may suddenly show tuberculous processes in the lungs. In twelve cases of goiter with tuberculosis eleven became manifest at the menopause, and in each of these cases the tuberculosis seemed to follow a period of hyperthyroidism and an increase in the size of the goiter. This hyperthyroidism which is apparently so characteristic of cases of goiter as they approach the menopause, is equally charactertistic of normal women at that time. Experimentally, ovariotomy induces primarily an overactivity of the thyroid, which is apt to be followed secondarily by a loss of functional power. At the menopause the loss of the ovaries is not abrupt, and therefore their gradual decline is associated with a prolonged phase of hyperthyroidism. The vascular and nervous troubles of the menopause seem to be largely similar to those of hyperthyroidism. Ovarian therapy and the serum of thyriodectomized animals relieve these conditions markedly. During menstruation the blood contains more iodine and arsenic than during normal periods, and in myxedema there is a subnormal content, or, according to Hertogue, their elimination is greatly reduced. The periods so critical for the development of tuberculosis are those of the sexual crises characterized by a lessened force of ovarian functions, increased force of the thyroid. Ovarian therapy seems to relieve the strain upon the thyroid and to give it functional rest. For this reason, if for no other, ovarian therapy is a valuable addition to our tuberculosis therapy, and Jacquerod of Leysin has employed it with success in the treatment of hemoptysis and the fevers and hyperemias of menstruation. Ovarian insufficiency is a condition of lessened sensitiveness to tuberlin and lowered resistance to tuberculosis which threatens a reduction of immunity. If the thyroid is functionally equal to the demands, hyperthyroidism as a compensatory effort always follows a condition of hypovarianism and is a regular consequence of castration or ovariotomy.

Hyperthyroidism and Tuberculosis. Goetsch, n. y. m. j. March 2, 1921.

There is a very interesting condition which has come to my attention in the last few years which I believe is a new clinical pathological syndrome in thyroid disease and to which I have given the name of diffuse adenomatosis. In this condition there is a very marked hypertrophy and hyperplasia of the interstitial cells of the thyroid, with an atrophy of the normal parenchyma. The gland is either not enlarged at all, or only slightly, and therefore frequently escapes notice. Thrills, bruits and nodules are not made out, hence the gland is frequently overlooked. The characteristic syndrome of loss of weight, asthenia, nervousness, labile pulse and slight elevation of temperature frequently brings these people to a physician, who suspects tuberculosis. I have had a number of patients belonging to this group who have stayed for months or years at tuberculosis sanatoria under the impression that their symptomatology was due to this serious condition, and who have gotten thereby little or no improvement. There are here no eye signs to help one, but there is obtainable the chronic symptomatology I have mentioned, together with a positive epinephrine test, which latter fact has brought them to my attention. I have operated upon a series of 15 to 20 of these cases, and have been very much encouraged indeed by the splendid results which in most cases have followed the thyroid resection when all other measures, even over long periods of time, had failed.

The Hypertension of the Menopause. Schlesinger. (Muenchener m. Wochenschrift. March 11, 1921.)

Schlesinger says that the generally diffused opinion that hypertension is the inevitable consequence of the menopause is not always accepted by the best authorities. There are many obscure and inconspicuous factors which may influence our judgment as to the degree of blood pressure, such as a full or an empty stomach, a state of emotional tension, the degree of fatigue at the time the pressure is taken. Instability of blood pressure is a much more constant and conspicuous feature of the menopause than simply hypertension. This instability is apt to be especially marked when the menopause is abrupt—that is, when the ovarian functions are abruptly altered and the endocrines do not have time to adjust themselves to the ovarian insufficiency. Psycho-neurotic constitutions are more apt to be unstable. An unstable and labile blood pressure is the therapeutic feature of the menopause much more than the hypertension. Our therapeutic efforts should not be directed towards lowering the blood pressure, but towards stabilizing it, and for this purpose organotherapy is the most essential.

Digitized by Google

"Child Health in Framingham." By Donald Armstrong, M.D., Executive Officer, Framingham Community Health and Tuberculosis Demonstration.

Some results: Birth registration has been extended till 97-99 percent of all births are registered; four year-round clinics for prenatal, infant and pre-school work are maintained; the milk supply has been improved; a summer camp for children has been opened; nutrition classes have been formed and educational work has been introduced in the schools. Practically all this work is carried on by Framingham agencies without outside aid. The effect may be measured to some degree by the infant mortality records. The rate for 1916, the year preceding the demonstration, was 81 per thousand births. In 1920 the rate was 75, 6 percent of the deaths being from gastro-intestinal diseases, 6 percent from infections, and the remainder from congenital causes, which shows that here, as everywhere, there is need for more attention to prenatal work.

The Organotherapeutic Treatment of Cancer. Naame. (Gazette des Hopitaux, n. 11, 1921.)

According to Naame an abnormal condition of endocrine secretions may cause a state of cellular anarchy of localized hypocytopolesis, permitting the excessive development of cancerous growths. Endocrine harmony in the production of stimuli governing cytolysis and cytopolesis determines the production of normal cells, while abnormal proportions are followed by abnormal cells. In two cases Naame obtained cures by the use of thyroid and mammary therapy. In two other cases recovery was obtained by using thyroid and ovarian preparations. Thyroid preparations are always indicated, but according to the type and the location of the abnormal growth, mammary, suprarenal, orchitic or ovarian preparations should be combined with the thyroid. Naame refers to an article by Korenschevshy in Societe Belga di Biologie for an explanation of the relation of the endocrine stimuli to the genesis and evolution of cancerous growths.

Four Cases of Dyspituitarism. Weygand. (Muenchen. m. Wochen. March 11, 1921.)

(1) A case of glycosuria, with obesity, deficient mentality, arrested growth, resulting in a dwarf and persistence of the menses. (2) A giant, very large and heavy, with approximately normal mentality, but arrested development of the genitalia. This was a case of hydrocephalus probably influencing the pituitary. (3) A girl with irregular, intermittent menstruation, amenorrhea, marked obesity and loss of vision. At the autopsy a pituitary tumor was found. (4) A condition closely resembling that of Napoleon during his last years. Marked obesity, epileptoid attacks and moderate hydrocephalus.

Dysmenorrhoea and Appendicitis. Uado. (Revista Espanola de Medecina Y Cirugia, January, 1921.)

Vomiting of the ordinary alimentary type is a common occurrence in the dysmenorrhoea of neurotic, mechanical, or spasmodic nature. In cases of appendicitis the vomiting is also of the alimentary type, but becomes more bilious in its nature.

The Crown Princess of Siam is one of the pupils at the School of Nursemaids conducted by the Household Nursing Association of Boston. The young princess, who, with her husband, is spending the winter in Boston, is taking the course in order to be able to organize similar classes for mothers in Siam, on her return home. The class is to meet two evenings a week for ten weeks, one lesson of the week being on he theory of the care of children and the other a practical demonstration.

NERVES AND THE MAN—By Charles Loosmore, M.A. Published by George H. Doran Co., New York, N. Y.

A popular psychological and constructive study of nervous breakdown.

The ominous phrase "nervous breakdown" is all too familiar in these days. Mr. Loosmore, who knows what the thing means, and has also had exceptional opportunities of meeting and dealing with many others who also know, has written this book in the belief that it will prove helpful to all victims of nerve trouble. Mr. Loosmore writes, not as a medical expert, but as a practical psychologist of wide experience.

Mr. Loosmore considers the nature of nervous breakdown; the causes, heredity and education, fatigue, nerve strain; the remedies, the call of nature, rest and relaxation, rest and sleep, health habits, laughter, the will and the way, self-suggestion, work, interest and hobbies, music and the emotions, self-education. Net, $2.50.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 6

June, 1921

$3 per year in advance
Single Copies, 25 cents

THE MOBILE V COLON, ITS CAUSES, EFFECTS AND CORRECTION*

By ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

A CAREFUL search of the literature concerning colonic conditions fails to throw light upon the cause of the acute angle quite frequently acquired by a perfectly mobile transverse colon in some part of its course between the hepatic and splenic flexure.

It has been my habit during a number of years to include in my examination of patients not only the condition of the musculature of the abdominal wall with reference to its supporting power, but the position and degree of distention of the various segments of the alimentary canal as far as can be ascertained by ausculatory percussion and auscultation. This was done to discover as far as possible: (1) Congenital or acquired abnormalities, if present. (2) To note the relation of the different parts of the canal to certain fixed landmarks, i.e., the ensiform cartilage, bisiliac line, and pubic symphysis. (3) To note the degree of distention present, its location and apparent permanency, or otherwise.

By this examination, as by the X-ray, many deviations from the normal have been observed. Among these is found a somewhat common, sharp bend downward and upward again in the transverse colon (without fixation). This bend, which is the subject of this paper, because of its resemblance to the letter V, has been aptly termed the V colon. The location, depth and acuteness of the angle formed vary in different cases; in extreme cases its apex approaches the pubis. More often, however, its lowest point is found three or four inches below the bisiliac line. I have found this sharp downward bend in children, but more often in adults of both sexes.

The etiology of this peculiar bend in the colon was an unsolved problem to me, as it evidently has been to others, until one day an abdomen was examined in which a marked separation of the recti muscles was observed behind and below the umbilicus (in this particular patient located an inch or more above the bisiliac line). By this separation of the supporting muscle bands a deep sulcus was formed in which lay the sharply bent colon. The lack of wall support thus produced evidently permitted the colon to drop, forming the angle described.

Shortly after this observation was made, a patient presented herself in whom a high abdominal section at some previous time had been made. There was a firm union below, but in the upper abdomen the recti muscles were widely separated. Here again the transverse colon had dropped, forming an acute angle.

Later a patient was examined in whom a sharp bend in the colon was found well to the right side of the navel instead of directly below it. A careful study of this case showed an elongated weak rectus muscle on the right side, while its fellow was firm and in normal position. The patient was a sculptor. She had worked almost constantly standing on a scaffold, holding in her left hand the mortar which she applied with the right. In doing this she was obliged to raise the right arm to shoulder level or above, at the same time dropping head and shoulders to the left. This posture placed the right rectus muscle more or less continuously on the stretch, thus causing its fibres to lose their tonicity, weakening the abdominal wall in that region and permitting the unsupported colon to drop downward into the space formed.

In a long series of cases a localized weakness of the abdominal wall has been found pari passu with the V colon, indicating that to this condition it owes its origin in many cases. In passing it must be noted that the so-called festoon, with which we have long been familiar, is not synonymous with the V colon. Laxness of the abdominal wall in its entirety permits partial or complete visceroptosis, in which condition the angulation of the colon is located in the hepatic and splenic regions. Because of its firm attachment to the side wall of the body, the angle thus formed is not usually as acute as that in the region of the navel, and its results, while always

*Read before the Medical Society of the County of Kings, Brooklyn, December 21, 1920, and reprinted by courtesy of publishers of the New York Medical Journal.

Digitized by Google

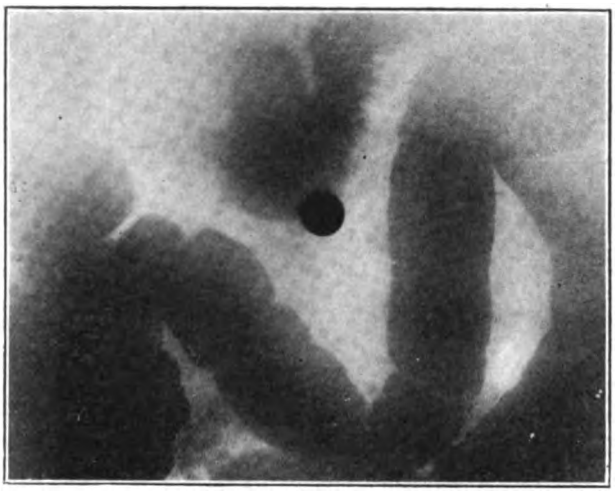


Fig. 1.—Mobile V Colon

harmful in the way of damming back the contents of the canal, are less so than those due to the V colon.

Remote Causes

These seem to be numerous—a history of umbilical hernia in infancy has been elicited in a few cases, which may have left a weak place in the abdominal wall in that region.

Prolonged sitting on the floor or jolting in a baby carriage causes strong intra-abdominal pressure upon the muscle wall. If at the same time the legs are everted, as they commonly are in this posture, a separation of the recti muscles is inevitable, thus weakening the abdominal wall. The stoop position in play, if long continued, may cause a temporary angulation of the colon. One such case has been seen by me.

A slender, long-bodied boy of six was given an attractive toy van. He played with it almost constantly, bending to load and unload it and to push it before him. After two or three weeks of such play he was seized with violent pains across the abdomen, which centered in the region of the navel. A few days in bed under medical care resulted in recovery, and he resumed his play with the van. In a short time he had a similar attack and recovered as before. When a third threatened, his mother brought him to me. By auscultatory percussion I outlined an acute angle in the colon below the umbilicus. This was corrected on the operating table by exercises to be described later. The muscles of the abdominal wall were strengthened and developed by proper exercises, with the result that there has been no angulation of the colon since, and no repetition of the attacks of pain.

Child bearing has long been a recognized cause of enteroptosis; it must also be included among the causes of production of the V colon. The strain which a gravid uterus exerts upon the abdominal wall, the muscles of which are often but poorly developed, is quite sufficient to overstretch and rupture its fibres. In the same way a separation of the recti muscles may be produced, followed by a V colon.

In a woman with narrow hips, as also in the one with marked anterior obliquity of the pelvis, the pregnant uterus is always carried high and projected strongly forward. A woman thus built came under the care of the writer a month or so after the delivery of a rather large child. Her recti muscles were so widely separated in the upper quadrant of the abdomen that a portion of the transverse colon and loops of the small intestine could be felt in the sulcus thus formed. Although this was an extreme case, it demonstrates the tendency to such overstretching of the abdominal wall in pregnancy as to leave it a weak-

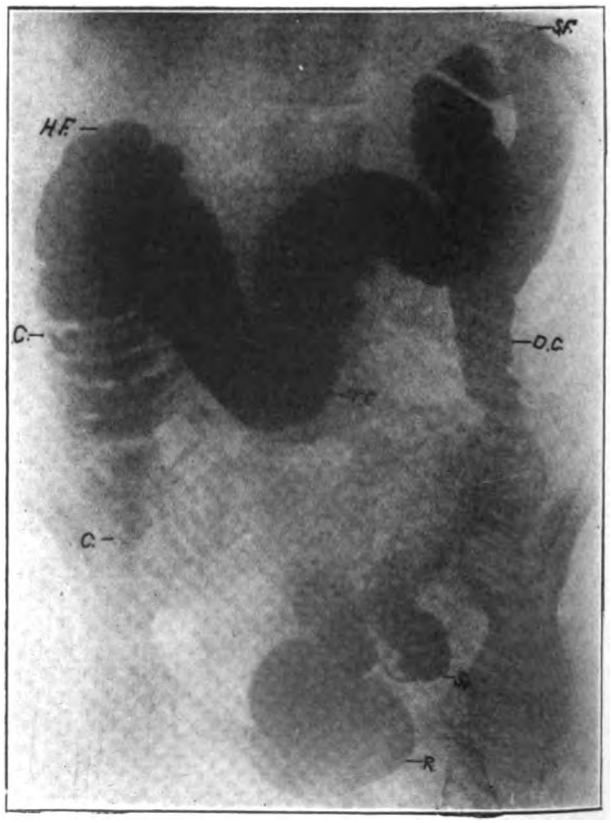


Fig. 2.—Mobile V Colon

Digitized by Google

Fig. 3.—Lead plate in sulcus between separated recto muscles

ened structure with a strong probability that sooner or later general visceroptosis or a V colon will result.

Bad postural habits during school life and later produce localized weakness of the abdominal musculature. The slouch standing posture permits laxness of the external and internal oblique and transversalis muscles on the side of the resting leg. In time the wall on that side becomes thin and loses some of its supporting power, while the same muscles on the opposite side by use become firm and strong.

Occupational postures must be included among the causes of the V colon as well as of the more common festoon colon. As men are not exempt from visceroptosis, so also they do not escape the V colon. In fact, it was in a male patient that the writer's attention was first called to separation of the recti muscles as a cause of the formation of a V colon. In this case the muscles of the abdominal wall were fairly well developed, including the recti muscles themselves; because of this the sulcus, formed by their separation, was more evident than is usual in women patients. This man gave a history of having done years of laboratory work over microscope and test tube in a position which crowded the abdominal viscera strongly forward at the waist line.

Effects

Because of the acute angle formed, the power of the V colon to obstruct the onward flow of the contents of the canal is greater than that of the festoon colon. Its comparatively close attachment to the stomach frequently causes it to drag down that viscus with it, thus lessening the power to empty its contents promptly.

Acute pain results only when the amount of material dammed back into the hepatic colon becomes sufficiently great to cause colic, as it did in the case of the little boy to whom reference has been made. A sense of fullness, discomfort, a dull ache in the hepatic and epigastric regions is often complained of, accompanied by loss of appetite and sometimes nausea. Fatigue out of proportion to effort expended becomes more and more marked as the hepatic and ascending colons undergo greater and greater distention, and probably agglutination of these occurs in some extreme cases. In a word, the entire evil brood generated by intestinal toxemia may be traced in extreme cases to the obstruction of a mobile V colon.

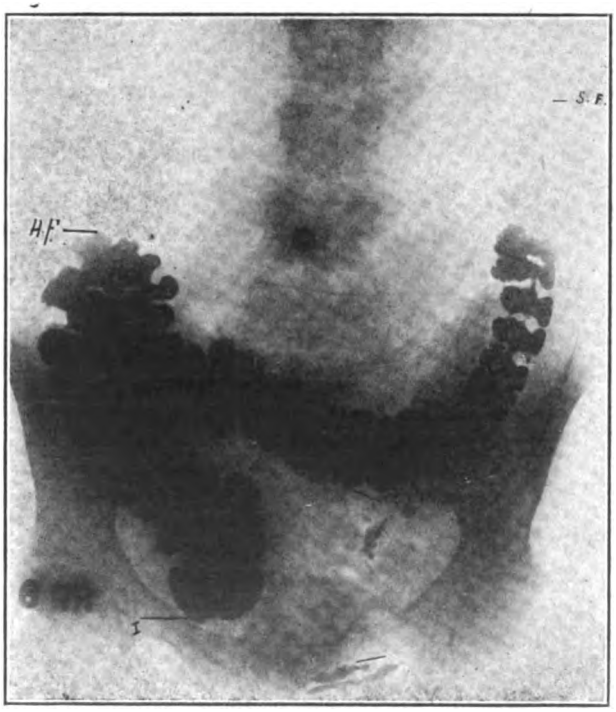


Fig. 4.—Mobile festoon colon

Digitized by Google

A V colon is not difficult of diagnosis, especially when due to separation of the recti muscles. Inspection in a strong light shows the sulcus between muscles and the fingers of one hand drop into it with slight pressure. In addition to this the evident ballooning of the hepatic colon can be both seen and felt. By auscultatory percussion one easily follows the upper and lower border of the colon as it bends down and up again. The size of the canal is usually lessened in the bent portion, while in the hepatic section by continued distention it becomes doubled or trebled.

Correction

Fortunately, it is not difficult to replace temporarily either an acutely bent or a festooned colon, when not fastened down by bands or adhesions.

Four or five long, sighing expirations to empty the lungs (body recumbent) permit the diaphragm to rise to its highest level, carrying with it the abdominal contents. If now a properly designed supporting belt be applied and continuously worn with, if need be, a soft pad placed beneath or against any localized weak portion of the wall, there should be no repetition of the displacement of the colon.

The overstretched and ballooned section behind the dropped segment in time usually regains its tonicity, and the stasis that caused intestinal toxemia disappears.

Exercises for bringing together the separated recti muscles and for developing other muscles too weak to hold the contents of the abdomen in place should be promptly inaugurated and faithfully continued. The following are effective and many others can be added:

1. Replacement of viscera by long sighing expirations following moderate inspirations.
2. Frequent and forceful voluntary contraction of the abdominal muscles without the aid of respiration.
3. Slow elevation of the closely approximated legs to a right angle with the trunk (body recumbent).
4. Slowly repeated sidewise see-saw movements of the head and shoulders (body recumbent. The latter movements may also be taken sitting or standing.)

The first of these exercises elevates the abdominal viscera and straightens the bent colon; the second strengthens the entire musculature of the abdominal wall. The third does the same, and draws firmly together the recti muscles. The fourth exercises the lateral muscles of the abdominal wall.

Résumé

A more or less acute angle is liable to form in any part of the transverse colon where there is localized weakness of the abdominal wall. Because this bend resembles the letter V it has been termed the V colon.

In moderate degree this bend is of common occurrence—in extreme degree, occasional.

Its consequences are far reaching. It slowly undermines the health by causing stasis in the bend and in the section of colon behind it.

Recognition of the V colon is easy by auscultatory percussion, but more difficult with bismuth enema, because of the tendency of the latter to mechanically straighten the bend as it fills the transverse colon.

Temporary correction by slow, sighing expirations, elevation of legs, and other measures can be quickly accomplished.

Permanent correction can be made by applying a simple supporting belt, and by the faithful and persistent use of exercises calculated to draw the recti muscles together and to strengthen the entire musculature of the abdominal wall.

Dr. Mosher is indebted to Dr. Frederick Shoop, of Brooklyn, for Plates I, II and III; to Dr. A. J. Quinby, of New York, for Plate IV.

184 Joralemon Street.

AMERICAN NURSES MEMORIAL IN FRANCE

Of all the permanent memorials of the Great War that Americans have left in France none gives more promise of growing in importance than the new Florence Nightingale Training School for Nurses established at Bagatelle in the beautiful Bordeaux suburb of Talence. It is dedicated to the memory of the 284 American nurses who gave their lives in the war, and was given by the nurses of America, through small individual subscriptions.

The school was founded twenty years ago by Dr. Anna Hamilton, who on the memorable day of June 5th last, when the cornerstone of the new building was laid, sat quietly in the shade of a great elm and modestly acknowledged the shower of felicitations from Americans and French men and women of prominence on the fruits of her twenty years' struggle to raise the standard of nursing in France.

Seldom has there been witnessed in France a Franco-American ceremony more touching. The weather was almost ideal—a beautiful sunny afternoon followed by an evening of cool and gentle breeze. The scene was set in the park of Bagatelle, a charming estate given to the hospital by Mademoiselle Elizabeth Bosc, of Bordeaux. Under a great fifty-year-old tree and flanking the cornerstone was a stand draped in American and French flags.

Digitized by Google

FACTS CULLED FROM FIFTEEN YEARS' MEDICAL PRACTICE

By M. LOUISE HURRELL
Rochester, N. Y.

QUITE recently the question "What is your specialty?" was asked the writer, and the answer, "I have none, I am a general practitioner," brought forth a rather contemptuous query, "Just a general practitioner?" "Just," was the monosyllabic reply, given in the manner of the newspaper man, who said he was a common hack, and gloried in it. In these later days of progress where experts have claimed every department of medicine, the general practitioner's position has undergone a great change. Much will depend upon the vision and the adaptability of the non-specialist, if he is to remain a unit in the working whole. That he is a needed unit is answered by the fact that group medicine can rarely rival in its results the work of many of our doctors of the old school. The fact of the matter is, that the general practitioner has **always** had a specialty which must now reach its highest development, and that specialty is first, last and always, **diagnosis;** then easily can be procured from other departments the expert help. In attaining his goal he must be a student, always a passenger on the train of advancement, and he must be adaptable to the nth degree, having none of what Emerson called "Foolish Consistency," for the laboratory with its biochemistry, its new metabolism and its advanced electrical department, performs revolutions. Above all, though, must he be a thinker for himself and an independent observer, not carried away with every new discovery until the test has well been made. When the physiologic chemist tells him that sweating does no good in eclampsia because no change takes place in the blood through it, he must not cast aside for him a treatment that he has seen result favorably.

While at Rochester, Minn., for six months, in a losing fight with a patient, an opportunity was given for systematic diagnostic study; fifty consecutive gall bladder cases were seen, histories and laboratories findings studied, operations witnessed, specimens examined pathologically, cases studied post-operatively; in the same manner were followed a series of kidney cases, thyroids, pernicious anemias. This method pursued in any big clinical centre gives a wonderful knowledge of the workings of the experts and makes a good course for those who specialize in general diagnosis. The two big medical facts that impressed the first month's practice, some seventeen years ago, were the uselessness of tonics and the perniciousness of cathartics; both were eliminated from the medicine shelves and never prescribed, and the drug agents at once met a new specimen at which they still wonder. The cathartic habit of the American people is the result of three causes—first, the gullibility of the public, who read and believe the advertising shark; second, life's mad rush on this continent; and third, faulty food. If all the general practitioners in our wide land began a crusade against cathartics, instituting, say a "Better Bowel Movement," with which to interest the public, there would be much less work for the specialists of most departments and a great benefit bestowed upon the race. This cathartic taking is universal here in America; how many homes have not their bottles of Cascara pills, their A. S. & B.'s, their licorice powders, or Senna leaves, not to mention the esthetic salapatica and effervescing seltzers? The following routine has been followed for years, invariably with success, in the banishment of cathartics: Upon arising the patient is told to inject into the rectum a cup full only of cold water containing half a teaspoonful of salt, which is to be retained until after breakfast. The object of this is to stimulate the rectal muscles; at the same time he drinks a glass of cold water containing the juice of half a lemon, this to stimulate the flow of bile; immediately before eating he drinks a cup of hot water containing salt. The breakfast consists first of a plate of fruit, composed of equal parts of stewed prunes, apricots and peaches unsweetened, a dish of oatmeal containing a tablespoonful of either flaxseed, bran or agargar. After breakfast the patient is advised to take two tablespoonfuls of mineral oil for lubricating purposes; added to this regime are two exercises, each performed ten times—the squatting exercise and the rotating of the body with alternating arms up and down. The squatting position which is necessary in the use of the French toilets is very beneficial in overcoming constipation. Constipation in France was a thing almost unknown amongst the patients taken care of by our unit during our fifteen months abroad. At a staff meeting at the end of the time, the report on this subject from all members showed but two authentic cases of constipation; also along this line should be reported that in the series of surgical cases in those fifteen

Digitized by Google

months, there were but two cases of gall stones; this gives food for thought. The diet of the French differs vastly from the Americans. To the Frenchman a plate of greens, summer or winter, is an indispensable article of diet, also a fermented cheese. These two articles of food are an aid in the peristaltic action of the bowels. An observer comparing the results of general practice in France and in America is at once impressed by the simplicity of diet of the Frenchmen as compared with that of the American, the amount of carbyhydrates and sweets being greatly in excess in the American's diet, and the American constantly complaining of the fermentation in the stomach, with resulting gas pains, the Frenchman rarely mentioning that organ. Obesity, dangers of which, with a tendency to diabetes, so strongly brought out recently by Jocylin of Boston, is rarely seen among the French peasants. During the fifteen months **no** case of diabetes came under observation. Does it not seem that the advisers of public health, the general practitioners, should make a strong effort to simplify the diet of the people who come under their control? At the present time, the nutrition question, with a special reference to the under-fed school children, is receiving a great amount of consideration. The classes for undernourished children are meeting with marked success. An equal amount of consideration should be given to this question of over-nutrition.

The fact that almost every patient encountered in France was a sufferer from worms may account for the lack of constipation and the lack of obesity. So prevalent were these worms and such unheard of complications resulted from them that the order was given to administer to every patient upon admission, santonin, calomel and castor oil; seven patients in the wild delirium of typhoid, vomited large round worms, after which their nervous symptoms subsided, while three cases of pneumonia with wild delirium began a recovery after passing large round worms. These worms were of the variety, Ascaris Lumbricoides; no tape worms were encountered abroad. Worms in this country are likewise very prevalent. This is contrary to the teaching, which the writer received while in college, where it was said worms did not exist, but were an old woman's notions. During the first five years of practice, spent in a German community, eight tape worms were taken from patients, one from a child two and a half years old; a recent case of laparotomy for simple ovarian cyst on the fifth day developed acute obstruction of bowels, with no symptom of infection; an emergency life-saving enterostomy was done under cocaine the second day, after which the nurse showed the doctor several feet of a dead tape worm which probably during its death agony, due to the ether narcosis, had balled itself up, causing the obstruction. A case under present observation, woman 42 years old, has vomited within three weeks fifty round worms, and yet an officer of the public health association recently made the assertion, at a meeting of nutrition workers, that there were no such things as worms in Rochester. To us who have seen the almost marvelous cures of various ailments resulting from the extraction of abscessed teeth, a fact which we cannot explain, are the scores of "healthy" old French peasants, the condition of whose mouths are unspeakable, as dental work among the peasants of France is a thing unknown, as also are so-called rheumatic conditions, almost a paradox!

A treatment of neuritis which has given great success to the writer has been a deep vibratory motion with the finger directed along the nerve-giving trouble. This treatment is never used until the acute inflammation has subsided, and then never until exhaustive study and examination of the case has failed to bring to light any focus of infection. There are many cases of neuritis which are evidently due to intense nerve shock wholly. Soldiers taken care of in France, suffering from intense headaches, due to shell shock, were given permanent relief by this treatment. In this connection a report of the first case so treated may be of interest. F. K., male, aged 20 years, perfectly developed, no physical signs of any impairment, had suffered for two years with intense pains in upper dorsel and cervical nerves, only finding sleep possible when in the erect position with hands overhead. This condition followed "immediately" upon witnessing the accident and death of a friend. This vibratory manipulation along the roots of the nerves gave first relief, and at the end of two months' treatment cured the case. Many chronic cases with resultant lack of motion can be cured in this same way; possibly this manual treatment accounts for the results obtained by chiropractors and osteopaths. Seventeen years of practice teaches us all the futility of many drugs, and that simple treatments and remedies do meet with great results.

Digitized by Google

Elimination of bowels and kidneys with plenty of air cures pneumonia, as well as do the serums. A simple solution of saturated epsom salts and glycerine applied to an area of erysipelas gives results as quickly as a serum.

Long-continued minute doses of potassium iodide have helped as many asthmatic cases as the newer serums following the proteid reactions.

So contradictory do we find things in the practice of medicine that we are tempted to quote the famous John Hunter, who once told a medical student not to record an observation of his in his note book, as next year he would think differently.

Special Message to American Medical Women

Antoinette Russell, M.D., who has served overseas with the Friends' Society, has just returned to America, and brought a message from Dr. Etta Gray in Serbia to the American Women's Hospitals and the Journal. She has served at Leskovitz and Letch, Western Serbia and Southwest of Nisch. The Friends are going on with their work for at least another year, as Dr. Russell says there is great need for it.

My dear Editor:

I think you will be interested to know that I went to Veles on purpose to visit Dr. Etta Gray, and the work of the American Women's Hospitals there. In the Preventorium every inch of space is occupied, and they haven't half enough room, for the work is spreading and growing all the time.

There are two hospitals in Veles—the Children's Hospital and the Surgical—the latter being in charge of Dr. Margurite White, and it was amazing to see the amount of work that has been done here. One could hardly realize that so much work could be done in the small space they work in. They have every class of disease—abdominal cases, orthopedic cases, children in casts, spinal deformities and joints, amputations and every imaginable operation. This hospital is given up almost entirely to surgical cases of adults.

We then went to the Preventorium for Children, and there I found a great work and the future "Serbia." It was full, with the exception of one space—the hallway—and Dr. Gray was arranging to utilize this also. Here I saw Dr. May T. Stout, the eye specialist, who is really performing miracles. They had to use the basement, in which every space was occupied. The people come from far and near for eye treatment. Many of them have cataracts, and they wait in line for hours, saying "If I could only see!" Dr. Stout calls this her "second children's ward" because there are so many old people, and one can hardly realize how patient they are. Some of them have been in good circumstances, were even rich people, and now they find themselves reduced to nothing.

There are 200,000 inhabitants with no hospitals established, and the local authorities can not possibly take care of them. The one and only thing to do is to stay on the job, retaining the physicians who are there. They need more physicians in Serbia, and I hope the A. W. H. will be able to send more. I met a Serbian doctor, who was a military physician, who told me he had been in this place for months and had never been called to a woman. There were several places where women needed physicians, and they would not call in a man physician, nor was a man physician allowed to enter or see a woman patient.

I found such a good dentist at Veles that I stopped there and had my teeth fixed up before returning to America. The fame of Dr. Mary Bercea had spread so far that I traveled two days and a half to have my work done, knowing that there was a dentist there who could be relied upon—an American-trained dentist!

I hope that every woman who reads the "Journal" will take a personal interest in this great work which is being done on the other side.

Cordially yours,

ANTIONETTE RUSSELL, M.D.

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M. D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

THE FUNDAMENTAL PRINCIPLE IN SUCCESSFUL OPERATION FOR VESICO-VAGINAL FISTULA.

By BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

Professor and Head of Obstetrics
Loyola Medical School

THE underlying principles upon which success depends in operating for repair of the various forms of vesico-vaginal fistulæ have claimed the attention of surgeons from the seventeenth century to the present time.

Sims attributed his success to the silver wire suture, which was proof against any possibility of absorbing septic material or secretions from the vagina and bladder. Later separate suturing of both vaginal and bladder mucosa was considered the necessary element for success. Others insisted upon inversion of the bladder mucosa to secure perfect closure. A freely movable bladder around the site of the fistula to secure success has been urged as most important, and vaginal flap operations, lateral incisions in the vaginal mucosa, and suprapubic operations have been devised. It has been suggested that everything depends upon care used in passing the sutures so that lines of suturing are never superimposed upon each other. Judd in a recent article laid emphasis on the importance of leaving no dead spaces between the vesical and vaginal mucosa.

There is no doubt that any or all of these points may become the crux in the problem of closing some of the various forms of vesico-vaginal fistulæ, but the occasional failure shows that none of these points furnish the one fundamental principle upon which the closure of every form of fistula depends.

In our search for this sine qua non, let us study the spontaneous healing of fistulæ. We all know that certain fistulæ heal without operation, and some even close after an operation that has been apparently unsuccessful. For comparison, take suprapubic cystotomy. Here there is no fear of fistulous formation, but on the contrary efforts must be directly exerted to prevent healing until there is no longer need for vesical drainage. In former years gall-bladder fistulæ were not uncommon, but since the introduction of the method of dropping the gall-bladder well beneath the muscle and peritoneum the removal of the drainage tube is followed by a speedy closure of the gall-bladder fistula. Fecal fistulæ rarely require operation, although they may be slow in healing.

Would it not be possible to lay down this law that fistulæ will not be permanent unless the mucosa of one organ comes directly in contact with the mucosa of another organ or with the skin? If we apply this law or principle to the operation for repair of vesico-vaginal fistula, two lines of action are before us. We may dissect the bladder from its vaginal attachment so that it can be pushed up and away from the vagina in a manner identical with the surgical technic for cystocele, or we may pull down or cut entirely away the vaginal mucosa so that it cannot in any way come again in contact with the vesical mucosa. This latter method will result in the complete or partial destruction of the vagina. The result of efforts to apply this principle to the various forms of fistula will be shown in the following series of cases:

Case I. Mrs. M. B. Patient admitted to Cook County Hospital September 25, 1917. She had had a forceps delivery five weeks previous to entering the hospital. She complained of incontinence of urine, and upon physical examination was found to have a cystocele, rectocele, lacerated perineum, and entire absence of the cervix. No sign of fistula in the anterior vaginal wall, although the urine seemed to pour from the vault of the vagina. Cystoscopic

Digitized by Google

examination showed a fistula the size of a pencil at the junction of the corpus and internal os extending to the bladder a little to the left and below the ureters. Diagnosis, vesico-uretero-vaginal fistula. Patient was operated upon October 12, 1917. The bladder was completely separated from the anterior wall of the uterus up to but not through the peritoneum. The vaginal mucosa was stripped back from the fistulous area for a distance of one and a half inches. One catgut suture was introduced to draw the intervening tissues together and produce a more complete separation of the vaginal and vesical mucosa. A small idoform gauze drain was inserted in the intervening space, and the vaginal mucosa was closed with silkworm gut sutures, leaving space for the gauze drain. A retention catheter was inserted. The gauze drain and the retention catheter was removed on the third day. On the 12th day urine was escaping by the vagina. On the 27th day the fistula was closed, but the patient remained in the hospital one week longer for the treatment of a bilateral pyelitis (colon bacillus infection). She was discharged cured November 13, 1917.

Case II. Mrs. M. P. Admitted to the Cook County Hospital on February 19, 1918, had a vaginal myomectomy for a fibroid size of a child's head. The operation was followed by a vesico-vaginal fistula, one-half inch long in the central portion of the vaginal incision about one and one-half inches above the urethra. The fistula was repaired in June, 1918, with only partial success, and the patient returned to the hospital September 9, 1918, complaining of a constant dribbling of urine. She had a carbuncle on the buttock, so she was not in condition for operation until October 11, 1918. The first repair was done by the usual method of denudation with separate vesical and vaginal closure, but the second repair was done after the technic of cystocele. The bladder was separated freely from the vagina, then pushed through the servico-vesico-fascial ring and retained by two mattress sutures of catgut. The vagina was closed with silkworm gut sutures and a few strands of catgut were inserted in the intervening space for drainage. A retention catheter was placed in the bladder and remained for nine days. The patient was discharged on the 14th day and requested to return in five weeks for the removal of the vaginal sutures. At this time there was some, but very little, dribbling of urine. The sutures were removed in December and the closure of the fistula was complete at this time and has remained so.

Case III. Mrs. B. H. Had a pan-hysterectomy at the Cook County Hospital June 10, 1918, for carcinoma of the cervix. She was discharged, but returned August 6, 1918, with a vesico-vaginal fistula large enough to admit two fingers. It was situated at the cervico-vesical junction and surrounded by dense cicatrical tissue. She was transferred to my service for emetin treatment for return carcinoma. The patient was given 4 grains of emetin intravenously with severe reaction, and four days later the fistula was repaired. The cicatricial tissue was so dense and the normal vaginal mucosa so small in amount that no effort was made to preserve the vagina. The vagina was incised in four radiating lines from the fistulous opening and the vaginal mucosa entirely stripped away, down to the vulva. The levator and muscles were brought together with catgut sutures and the muco-cutaneous surfaces at the vulva united with silkworm gut sutures. A small gauze drain was inserted in the dead space and retention catheter inserted in the bladder. The drain was removed on the 4th day and the catheter on the 6th day. At this time there was no leakage of urine. Two days later, however, leakage began and was very free up to and on the 37th day. The silkworm gut sutures were removed on the 43d day. On this date all urine was escaping through the fistula, although the fistula was quite small. Patient returned seven weeks later with complete closure of the fistula, and has remained well and free from leakage ever since.

Case IV. Mrs. O. W., 30 years of age, never pregnant. Has a history of having had a hoop-skirt operation for complete prolapse of the uterus. Since the operation she has had constant dribbling of urine, and a pelvic examination shows that the prolapse is complete with no evidence of any previous operative procedure. The bladder was rapidly distended with sterile water to determine the location of the fistula, and it was found that the water escaped through a dozen pin-point fistulous openings into the vagina (in appearance much like a rose spray). Patient was operated February 22, 1919. The operation was the usual surgical technic for cystocele, no attention being given to suturing any of the fistulæ. A retention catheter was inserted into the bladder and removed at the end of a week. On the seventh day following this operation another operation

Digitized by Google

was performed for the relief of the prolapse. This consisted of an internal Alexander. Patient was discharged March 28, 1919. At this time she was free from any dribbling of urine and has remained well up to date.

Case I was produced by high forceps and was of the vesico-uretero-vaginal type. Case II was a large fistula surrounded by cicatricial tissue and diagnosed as return carcinoma. Case III was a simple type of fistula produced by surgical trauma, but refused to heal by the usual classical operation. Case IV was a case of multiple small fistulæ difficult to locate and close individually. In no one of these cases was any attempt made at operation to suture the vesical mucosa. In every case the space between the vesical and vaginal mucosa was drained with gauze, silkworm gut or catgut. All of the cases began to show leakage after the retention catheter was removed and continued to do so for varying lengths of time. All of the patients are permanently cured at the present time. In three the vagina was preserved, and in two the vagina was completely destroyed. The hopeless character of at least four of these fistulæ and the uniform success in all of them leads to the belief that if the principle of producing and maintaining perfect separation of the vaginal and vesical mucosa is carried out in all cases, no fistulæ will be found that will not be amenable to cure and that by a single operation.

BIBLIOGRAPHY

1. Judd, E. S.: The Operative Treatment of Vesico-Vaginal Fistulæ, Surg. Gynes. & Obst., 1920, 447-453.
2. Sims, J. M.: On the Treatment of Vesico-Vaginal Fistula, Am. J. M. Sc., 1852, xxiii, n.s. 59-82.
3. Ward. G. G.: The Operative Treatment of Inaccessible Vesico-Vaginal Fistulæ, Surg. Gynec. & Obst., 1917, xxv, 126-133.
4. Fatio, J.: Wehe-mutter, Basel. 1752, p. 284.
5. Jobert de Lamballe, A. J.: Comptes rend. de l'Acad. des Sci., 1850, and Traite des Fistules, Paris, 1852.
6. Rydygier, Berl. Klin. Wochenschr., 1887, No. 31.
7. Martin, A.: Zeit. f. Gyn. und Zeb., 1891.
8. von Dittel L.: Abdom. Blaseuscheident fistelu operation, Wien. Med. Woch., 1893, No. 25.
9. Mackenrodt, A.: Centralb. f. Gyn., 1894, No. 8.
10. Sanger, volk Samm. klin. Vort., No. 301.
11. Walcher Centr. f. Gyn., 1894, p. 1.
12. Freund, W. A.: Eine heue oper, z. schliessung gewisser Harnfestelu beim Weibe., Samm. klin. Vort. N.F., 1895, No. 118.
13. Vulliet F.: Nouv. arch. d'obst. et de gyn., 1887, p. 512.
14. McGill, A. F.: An Operation for Vesico-Vaginal Fistula through a Suprapubic Opening in the Bladder. Lancet, Nov. 8, 1890, p. 967.

Report of the Committee on Medical Education of Women of the Woman's Medical Society of New York State

Brooklyn, N. Y., May 2, 1921.

(Expenses)

Support of our Korean student	$150.00
Support of our New York State student	600.00
Printing 1000 letters, stamps, envelopes, etc.	20.00
	$770.00
Received (from 38 of N. Y. State's 800 women)	494.50
	$275.50
Paid on last year's deficit	57.00
Deficit 1921	$332.50
Deficit 1920	319.00
	$651.50

A drive was made to clear this deficit, which resulted in the following: Dr. Kimball, $25; Dr. Louise Hurrell, $25; Dr. Thelberg, $25; Dr. Mosher, $25; Dr. M. C. Potter, $25; Dr. M. E. Potter, $25; Dr. Sherman, $25; Dr. Gannett, $25; Dr. M. D. Rose, $25; Dr. Esther J. Parker, $25; Dr. Lucia Heaton, $25; Dr. C. M. Green, $25; Dr. M. Green, $25; Dr. Anna Craig, $25; Dr. R. S. Morton, $25; Dr. Angenette Parry, $25; Dr. Barringer, $25; and smaller sums amounting to $590.

The letter for the next year's needs will be sent out in July or August.

DR. ELIZA MOSHER,
DR. MARION CRAIG POTTER,
DR. MARY T. GREEN.

SAVING BABIES IN NEW ZEALAND

Over one-fourth of the babies born in New Zealand, the children of well-to-do as well as of poor parents, are reached by the infant welfare measures in force in that country. How effective these measures have been in saving the lives of babies is shown in a striking manner in a summary of a forthcoming report, "Infant Mortality and Preventive Work in New Zealand," just made available by the U. S. Department of Labor through the Children's Bureau.

In a period of forty-five years, according to this report, the infant mortality rate in New Zealand has been more than cut in half until now it is the lowest rate of any country in the world. During the last ten years the rate of decrease has been almost double what it was for the preceding decade.

Digitized by Google

THE BOSTON MEETING

Sixth Annual Meeting of the Medical Woman's National Association, June 10-11, 1921.

WE have come "to the end of a perfect day"—or, better—to the end of a perfect week; for, beginning June 6th, the people of the city of Boston and their guests had nothing but clear skies and glorious sunshine, felt delightfully cool summer breezes and drew deep breaths of salt-laden air. During that week the annual national convention of the American Medical Association was held, followed by the National Convention of our own Medical Women's National Association.

Those of us who came from the western coast expected nothing less from a convention city, but we were forced to the conclusion that it was a surprising and unusual experience for our hosts.

This brief article purports to give but the "atmosphere" and a few high spots of the meetings, the complete report of the transactions of the American Medical Association appearing in succeeding weeks in the "Journal," and the transactions and reports of the M. W. N. A. appearing in subsequent issues of the "Medical Woman's Journal."

There was, of course, the pleasure of unexpected meetings with old friends brought together from every region of the country; there was the all-too-frequent groping after forgotten names or marriage names, which lapses, however, were easily forgiven; there was the cheerful greeting of the college mate who "hadn't changed a hair," while others were obviously struggling to retain the semblance of a waist line in the face of a disgracefully normal appetite and much hard work.

Hotels were full, as were furnished apartments and some boarding houses. Some of us had forgotten that advancing age and increasing "breadth of beam" would make the dormitory cot seem much less hospitable than it was twenty or more years ago. Minor difficulties of that sort were more than compensated for by the pleasure of getting together, and those of us who had dormitory accommodations enjoyed the enforced return to youth.

The usual red tape of registration was never more expeditiously accomplished; the scientific exhibit was excellent, as usual; the meeting places seemed rather scattered about, and it was quite the thing to be lost and late in arriving at the first sectional meetings. But what of that?

There were certain items of especial interest to women in regard to the organization and scientific program of the A. M. A. There were no women in the House of Delegates this year. Was that our fault as medical women, or was it the fault of some one else? At all events, the fault (and fault it is, for the point of view of medical women should find expression in that body) lies "back home," and not in the House of Delegates. If we fail to make our judgment, personality and scientific ability felt in our State Society, there is no reason for accrediting us to the National body.

There were three hundred and twenty-seven scientific papers on the A. M. A. program; and of these, two were by women, while four other women collaborated with men in the development of papers. Are we so meagerly represented because we have nothing to say, or because we do not know how to say it, or because we do not seek the opportunity? In justice to women in medicine we should seek the answer to these questions.

One scientfic section of the organization in which there is a large membership of women, decided, in a moment of absent-mindedness on the part of its officers, to hold a "stag" dinner. The invitation, as it issued from the lips of the cheerful secretary, reminded us of the cordial invitation which was wont to be extended by "hard-shell," "deep-water" New England Baptist clergymen to communicants of other faiths to attend the communion service—the gentle hint being that those of other faiths were invited to remain away. We survived the blow, however, even to the point of cheerful tolerance of the situation.

Just as human beings, and not as a sci-

Digitized by Google

entific section, the medical women, to the number of approximately two hundred, dined at the Hotel Vendome on Wednesday evening. The arrangements made by the local committee were delightful.

Dr. Florence W. Duckering presided and Dr. Sarah Ellen Palmer acted as the stimulus to an interesting and amusing series of toasts. Those of us who listened to Dr. Palmer did not wonder that the boys in khaki on the banks of the Rhine were anxious to have her back, and we understand that she will be on her way to them within the next two weeks.

The scientific meetings and social gatherings kept us all busy; an occasional luncheon with fraternity friends was tucked in as time permitted, and the Councillors and Executive Committee of the Medical Woman's National Association laid its plans for the business transactions which were to occupy Friday night and Saturday morning of the perfect week which Boston had provided.

On Friday evening, at 8 p. m., the President, Dr. Martha Tracy, called to order the session which was to mark the sixth birthday of the organization. For expedition in the conduct of business, correct parliamentary procedure and general good feeling the proceedings have not been excelled in this organization or in any other. Of course there were the usual critical moments, not to say critical remarks, which might have struck dangerous sparks, but the absolute fairness, frankness and justice of the presiding officer saved us from any really difficult situations. (It is some comfort to know that there were some "critical moments" even in the House of Delegates.)

The report of the American Women's Hospitals given by Dr. Lovejoy was inspiring, showing, as it did, fourteen months of splendid service rendered in Serbia and the Near East, in co-operation with the Serbian Government, the American Red Cross and the American Relief Administration, the latter having just issued to us 1,000 complete outfits for children valued at many, many thousands of dollars. One most interesting feature of the report was that at the end of the year the treasury could show a balance of $10,000 more than the sum which was in the treasury when the work of the year began.

At the elections on Saturday morning Dr. Grace Kimball, of Poughkeepsie, was the successful candidate as President-elect; Dr. Mary R. Noble, First Vice-President; Dr. Martha Welpton, Second Vice-President; Dr. Sue Radcliffe, Third Vice-President; Recording Secretary-Treasurer, Dr. Rosa H. Gant; Corresponding Secretary, Dr. Isabelle Thompson Smart. Dr. Elizabeth Bass assumed the duties of the presidency at the close of the session.

The most imporant action taken by the Association was the response to a motion offered by Dr. Rosalie Slaughter Morton to the effect that the President be authorized to appoint a committee, which committee shall be responsible for the compilation of data relating to the history of medical women in America and for the subsequent publication of this material in the "Medical Woman's Journal" and in book form.

Reports from the Committee on Health Education and on Membership were of interest, as were also special reports relating to our contacts with other women's organizations.

The fact that all state and national official health organizations now recognize the importance of intimate co-operation with these lay organizations of women, if community health is to be made real, makes it of extreme importance that we as medical women should be in touch with them.

The annual dinner of the M. W. N. A. was held at the Vendome on Saturday evening. Dr. Florence Meredith proved a most charming toast-mistress, and Mrs. Walter B. Cannon as the guest of honor toasted "The Diet of Tomorrow" in a poem which should forever rank with the classics. One never dreamed that Walt Whitman and modern physiology could be so perfectly adapted to each other.

Miss Alice Stone Blackwell and Dr. Eliza Mosher gave us glimpses into the historic past which were most stimulating.

Our Serbian representative, Dr. Tognazinni, sketched for us the personal side of the work in that field among the children. She was, at the close of dinner, provided with funds with which to purchase an American flag which is to fly from the staff at the hospital to which she will return within the next month.

So ended our week of fellowship, the details of which will appear in later issues of the "Journal."

Digitized by Google

THE DIET OF THE FUTURE

The following most clever adaptation of the dietary fads of the present and the future, given by Mrs. Walter Cannon, of Boston, at the banquet of the Association, is reproduced for the benefit of those who did not have the pleasure of hearing it. But cold type cannot reproduce the joy of hearing this "gem," nor convey the atmosphere as given by Mrs. Cannon's inimitable presentation of it:

I seem to see the diet of the future, the food of the new man, the new woman, voters all.

I see the men full of causes, the women full of causes, no time, no inclination to eat, the food arranged for this stupendous change.

Where are the soup, the spinach of old?

Where is the cud man once was known to chew?

All gone the way of the corruptible and incorruptible alike.

Instead, man without teeth, heralding the new day.

I see him putting away dental degeneration, emancipating himself forever from oral foci of infection, gloriously mumbling his vittles.

Predigested grape-nuts, corn flakes (I look in vain for our old friend, Sunny Jim).

Carbohydrates that will dissolve in saliva, that will glide smoothly through the cardiac sphincter, that will rest like foam on the billows of gastric juice—I see man absorbing these, heedless, his mind aloof, his eyes dark with thought.

I see on the desk of regenerated humanity, beside the factory machine, at the sewing table, near the cradle, fat-soluble A and water-soluble B, ready, bottled, with the teaspoon attached to the bottle.

I see proteins taking a back seat, old-fashioned, the creatures of yesterday, and vitamines taking their place.

I behold bouquets of vitamines, worn at the belt, nibbled contentedly at the first warning twinge of rickets.

I see the lemon, Sicilian and Californian alike, coming into its own, piquant, decisive, antiscorbutic.

I see the receptive esophagus, that old avenue to the persistent life, learning new lessons, submissive, uncomplaining, taking what is given it without remark.

I see the cardiac sphincter closing down, compelling the stomach to learn its lesson, likewise to find new ways of wrestling with old pains.

O cessation of gastric peristalsis during times of excitement, I hail you!

O glands of internal secretion, performing your mystic function, I welcome you into the fellowship of organs!

In the new day you shall have your part.

We will feed ourselves for you and you for ourselves,

Pituitary to pituitary, thyroid to thyroid.

What you lack the sheep shall from secret parts of his anatomy surrender to you; what we lack you will bounteously supply.

O well-fed pituitary that will make the short tall!

O adequately nourished thyroid that will make the sluggard choreic!

O subtle adrenals that will mobilize the energies of man to live ten cycles of Cathay in the brief span of mortal life!

I will make a song of auto-intoxication, of the wine of psychic secretion.

I will chant the end of inhibitions, I will chorus the glories of unconditional reflexes.

I welcome, coming down the ages, the superwoman and the hyperman, transparent, toothless, eyes on the stars, plucking here some spinach and here again a plum, nuts serving for a fillip and a carrot as confection.

Food supremely eliminated, cooking done in test tubes, the laboratory supplanting the kitchen, man gloriously released from the flesh.

O foodless, endocrinic disembodiment, man of the future, we hail and welcome you. Deliver us from the consequences of our just completed menu, from the stomach and the duodenum busily at work, from ardent segmentation, from bile and pancreatic juice pouring out their energies so happily, from stimulation of the sympathetic system, from lulling to sleep of the defensive mechanisms, from all these joyous processes of digestion, from food and all its evils, deliver us!

RESOLUTIONS PRESENTED TO THE MEDICAL WOMEN'S NATIONAL ASSOCIATION AT ITS ANNUAL MEETING HELD IN BOSTON, JUNE 11, 1921

Whereas, At the annual meeting in June, 1917, the Medical Women's National Association appointed a committee for the purpose of conducting war relief; and

Whereas, Hospitals and dispensaries under the name of the American Women's Hospitals have been conducted by this committee in war-stricken countries for the past four years; and

Whereas, The American Relief Administration has contributed food and clothing for many of the children in the care of the American Women's Hospitals in Serbia; be it

Resolved, That the Medical Women's National Association in convention assembled wish to express their appreciation and deepest gratitude to the American Relief Administration for help in this work for the relief of children who are paying the price of war, and that a copy of these resolutions be forwarded by the secretary of the American Relief Administration.

Whereas, At the annual meeting in June, 1917, the Medical Women's National Association appointed a committee for the purpose of conducting war relief work; and

Whereas, Hospitals and dispensaries under the name of the American Women's Hospitals have been conducted by this committee in war-stricken countries for the past four years; and

Whereas, The American Red Cross has contributed generously toward the support of this work which is largely for the benefit of children whose parents lost their lives during the war; be it

Digitized by Google

Resolved, That the Medical Women's National Association in convention assembled send greetings and expressions of their most grateful appreciation to the American Red Cross for help in this work for the relief of human suffering, and that our secretary be instructed to send a copy of this resolution to the American Red Cross.

Whereas, The present situation in mother and child welfare work needs the impetus of Federal aid; be it

Resolved, That the Medical Women's National Association recommend the passage of the Sheppard-Towner Bill, and that a copy of this resolution be sent to the appropriate officials in Washington, D. C., and also to the Boston newspapers.

The Association wishes to express to Dr. Edith Hale Swift and her committee their very grateful appreciation for their untiring efforts for our comfort and well-being during both conventions.

Resolved, That we deeply appreciate the generous hospitality of the Boston women physicians in arranging for the meeting together of all visiting medical women at the dinner of June 8th, an unqualified success.

Resolved, That we thank its newspapers of the city of Boston for the space they have so generously given to the announcements and news of the Medical Women's National Association meetings.

Resolutions Committee:

LIDA STEWART COGILL, Chairman.
DR. P. S. BOURDOUX-SISCO, Baltimore.
(DR. MANION or DR. NOBLE.)

Memorial Resolutions

Presented by Dr. Rosalie Slaughter Morton:

Whereas, Dr. Eveline Ballentine, who was graduated from the University of Michigan 1877, and who died May 18, 1921, in Rochester, N. Y., was one of the women who was a brilliant link between the pioneer medical women of America and those who are graduating today; and

Whereas, Her intellectual gifts and rare qualities of heart made her cultivation and womanliness a blessing to all with whom she came in contact; and

Whereas, She was one of the charter members of the A. W. N. A. and for three years a councillor; and

Whereas, She was one of the most distinguished alienists in New York State, and in her thirty years of service did much not only to establish the great efficiency of the Rochester State Hospital, but to develop in its high scientific and humanitarian service the work of hospitals for the insane throughout the State; be it therefore

Resolved, That we spread upon our minutes an expression of our appreciation of Dr. Eveline Ballentine as a woman and as a physician and send an expression of our sympathy to her sister, Miss Harriet Ballentine, Physical Director of Vassar College, and to her niece, Dr. Emily B. Reichenbach, who graduates this year from Johns Hopkins School of Medicine.

Whereas, Dr. Dora Greene Wilson, of Kansas City, Missouri, was graduated from Northwestern Medical College, 1886, she was the wife of Mr. J. E. Wilson, president of the Canada U. S. Oil and Refining Corporation, was one of the members of our profession who typified in her life the union of qualities which made her a successful practitioner, a life-long comrade to her distinguished husband and the devoted mother of a son, who through her scientific knowledge was carried from the frailty of premature birth to splendid manhood; and

Whereas, We realize that in her representative position both in practice and as president of her County Medical Society, and as a vice-president of the Medical Women's National Association, she was a leader worthy of our highest traditions; be it

Resolved, To spread upon our minutes an expression of our gratitude that she helped to further the comradeship of medical women in the United States of America, and we hereby express to her husband and son our sympathy in their sorrow, which is also ours.

Dr. Morton moved adoption of these two resolutions. Seconded and carried.

Copy of first resolution to be sent to Miss Harriet Ballentine, Physical Director, Vassar College, Poughkeepsie, N. Y.

Copy of second to be sent to Mr. J. E. Wilson, 817 Harris Trust Bldg., Chicago, Ill.

Presented by Dr. Eliza M. Mosher: I hereby offer a resolution of respect and appreciation for the splendid service of Dr. Sara Creighton Best, of New York in her work for the Executive Committee of the American Women's Hospitals and her unselfish devotion to humanity:

Inasmuch as we have but lately learned that one of our number, Dr. Rosalie Slaughter Morton, being in Paris on the day following the armistice which ended the world war, and in the name of American women physicians placed floral tributes in memory of the noble American dead upon a cenotaph beside the Arc de Triomphe, I move that the organized medical women of America do here and now join Dr. Morton in making that act our own by a solemn silent rising vote.

REPORT OF THE CHAIRMAN OF COMMITTEE ON ORGANIZATION

KATE C. MEAD, M.D.
Middletown, Conn.

THE work of this committee has scarcely begun, for the task of making its personnel has been most difficult. It was necessary to wait for instructions from the Councillors, to receive stationery, to receive replies from the members who had been asked to be State chairmen, and answers from the presidents of the many State and local medical women's societies. Fortunately I did not wait long for these latter replies, only one of which has arrived to date.

From the first list of letters to every State I received eighteen replies in the course of a month, twelve accepting the

Digitized by Google

"honor" of chairmanship of their State, and six referring me to "Sister Mary." (It has been decided to appoint a chairman from each State, and to group the States as the League of Women Voters is grouped into seven divisions, each under a Regional Director.) To date there are thirty-one State chairmen and five Regional directors actually working for increased membership in the N. W. N. A., and planning work to be done by its constituents. The present list of this committee is as follows:

First Region

Dr. Ida Shirmer Thompson, Director, Hartford, Conn.
Maine—Chairman, Dr. Barbara Hunt, 5 Grove St., Bangor.
Vermont—Chairman, Dr. Grace Sherwood, St. Albana.
Massachusetts—Chairman, Dr. Evangeline W. Young, 20 Charlesgate W., Boston.
Connecticut—Chairman, Dr. Alice P. Ford, 1400 Chapel St., New Haven.

Second Region

Dr. Esther Pohl Lovejoy, Director, 637 Madison Ave., New York City.
New York—Chairman, Dr. Marion Craig Potter, 37 Gibbs St., Rochester.
New Jersey—Chairman, Dr. Elizabeth L. Martin, Friends' Hospital, Frankford, Pa.
Pennsylvania—Chairman, Dr. Florence E. Kraker, 1308 Spruce St., Philadelphia.
Maryland—Chairman, Dr. P. S. Bourdeau-Sisco, 1315 N. Charles St., Baltimore.

Third Region

Director, Dr. Anna E. Rude, Children's Bureau.
Dist. of Columbia—Chairman, Dr. Kate B. Karpeles, 1207 Columbia Road, Washington.
Alabama—Chairman, Dr. Willena A. Peck, Montevallo.
Mississippi—Chairman, Dr. May F. Jones, Sanatorium.
Tennessee—Chairman, Dr. Sarah York Blankenship, Halla.
South Carolina—Chairman, Dr. Rosa H. Gantt, Spartanburg.
Louisiana—Chairman, Dr. Rena Crawford, 3529 Prytania St., New Orleans.

Fourth Region

Director, Dr. Bertha Van Hoosen, 4845 Calumet Ave., Chicago, Ill.
Ohio—Chairman, Dr. Helena Ratterman, 1532 Elm St., Cincinnati.
Illinois—Dr. Lois L. Wynekoop, 3406 Monroe St., Chicago.
Kentucky—Chairman, Dr. Florence Brandeis, 1124 S. 4th St., Louisville.
West Virginia—Chairman, Dr. Harriet B. Jones, Glendale.
Wisconsin—Chairman, Dr. Edith McCann, 503 Goldsmith Bldg., Milwaukee.

Fifth Region

Director, Dr. Mabel Ulrich, 1718 Oliver St., Minneapolis, Minn.
Iowa—Chairmen, Dr. Nellie Noble, Equitable Bldg., Des Moines; Dr. Zella M. Stewart, 1010 Woodlawn Ave., Iowa City.
North Dakota—Chairman, Dr. Eliz. Pond Rindlaub, De Landrecie Bldg., Fargo.
Montana—Chairman, Dr. Mary B. Atwater, 516 Hayes St., Helena.

Sixth Region

Director, Dr. Elvenor Ernest, 727 Kansas Ave., Topeka, Kas.
Nebraska—Chairman, Dr. Margaret W. Koenig, 1211 N. St., Lincoln.
Kansas—Chairman, Dr. Elvenor Ernest, 727 Kansas Ave., Topeka.
Colorado—Chairman, Dr. Elsie Pratt, 505 Metropolitan Bldg., Denver.
Oklahoma—Chairman, Dr. Winnie M. Sanger, 395 Robinson St., Oklahoma City.
Texas—Chairman, Dr. Minnie R. O'Brien, Central Trust Bldg., San Antonio.
Arkansas—Chairman, Dr. Olive C. Wilson, 200 W. Main St., Paragould.

Seventh Region

Director, Dr. Grace Kimball (La Jolla, Cal.), Poughkeepsie, N. Y.
California—Chairman, Dr. Martha Welpton, Am. Nat'l Bank Bldg., San Diego.
Washington—Chairman, Dr. Florence E. Rose, 1101 17th Ave., Spokane.
Oregon—Chairman, Dr. Mae Cardwell, Morgan Bldg., Portland.
Nevada—Chairman, Dr. Anna DeChene, 484 E. 7th St., Reno.
Utah—Chairman, Dr. Elsie Ada Faust, Hooper Bldg., Salt Lake City.

(Not heard from)

Honolulu—Dr. Mirmett Burnham.
Alaska—Dr. Alice C. B. Bradley, Fairbanks.
Manila—Dr. Caroline L. Carson.

The first State association to belong bodily to the M. W. N. A. is that of Kansas, organized by Dr. Elvenor Ernest, VI Regional Director. It has a charter membership of twenty women in active practice. This is certainly very gratifying, being almost 50 percent membership of the women doctors in that State, and it demonstrates what can be done by one who has the will to work for the association.

That the organization of any great work is difficult was proved long ago by the pioneer women doctors. They were obliged to stand alone, but as our Dr. Mosher has pointed out, the fable of the bundle of sticks applies to those of us who have followed in the footsteps of the brave pioneers; and if we do not wish to be separately broken like single sticks we must unite and prove our strength, for, she says, "we have for years been so afraid of segregation that we have failed to gain the strength that union always brings." This campaign for membership is then no exception to the rule that the difficult things are worth while. I have sent out nearly a hundred letters each month since plan was adopted, urging medical women

Digitized by Google

here and there to shoulder the membership drive in their own States. From all these letters I have received answers to less than half. The replies have, however, been interesting. Six of the best-known writers and lecturers among our medical women wrote that they could not belong to an association which did not control its own journal. Several others said that they were not interested in any more social clubs for women, and they did not believe in segregation from the men (Note 1), and one woman advised us to invite the men to belong to our organization. Others suggested various kinds of work for us to undertake, such as gaining reciprocity of States in the matter of medical licenses, increasing the number of matriculates at the women's medical college and other medical colleges where women study, and opening more hospitals and public health positions to women doctors. Another suggests having a committee on legislation to work with the League of Women Voters (Note 2), then making the twelfth national association to have representation at Washington. It was also suggested that first-class homeopathic practitioners, women dentists, pharmacists, and bio-chemists, should belong to our organization.

All in all, the following propositions seem quite practical and possible of attainment:

1. Let us be organized for peace as well as for war. We have not had the last war. Napoleon said that "three-fourths of the mankind never do necessary things until occasion arises, and then it is too late; adequate equipment and efficient personnel can accomplish everything in war or peace."

2. Let us raise funds for our association and have a paid secretary, our own journal, and an office room somewhere (Note 3).

3. Let us co-operate with public health committees all over the country as a substitute for division and rivalry, in work for child welfare, larger registration of women in medical schools, more opportunities for women in medical colleges and in public health positions, as well as in hospitals, for improving the health of women in industry, and for maternal welfare, better State and Federal health laws, social hygiene, mental hygiene, and the end of tuberculosis. Many of these subjects have been taken up by the men of the A. M. A., but there is much still to be done by us women, for, as one of our Regional Directors says, "Public welfare needs the guidance and power that a strong association of medical women can give." Then, having united in a campaign for national betterment, let us unite in work with the International Association for mutual help and inspiration. We are justly proud of the work of our American Women's Hospitals, and we can be as proud of any work that we undertake concertedly.

To accomplish all these undertakings our union must be closer. We must amend our Constitution to admit of more classes of associate members. We must make rules for the affiliation with us of State and local medical associations of women, perhaps after the manner of the League of Women Voters. We must provide for affiliation with the International Women's Medical Association. We must shoulder our responsibility to our news sheet, bulletin or journal. We must refute our characterization as slackers, for less than one-fourth of us volunteered for war work as against 63 percent of the men doctors. If our organization had the same proportion of members as the A. M. A., we should have nearly or quite three thousand members, and that would give us a good income, and perhaps we should be considered worthy to be admitted to the National Health Council, a consummation devoutly to be desired.

In closing, I can do no better than to quote the letter of our president, Dr. Tracy, to non-members of our association: "The Medical Women's Association must exist, not for the segregation of medical women from medical men in scientific work, but only as machinery to accomplish certain things in the interest of women to which men have given scant attention; work which must be done by women if done at all."

Note 1.—Representatives of various organizations have frequently sat on committees of the British Medical Association. We have no representation on the committees of the A.M.A., not one woman is on the fifteen new committees to determine graduate courses for specialists, and few women are serving as individuals on any of their older committees. Out of eighty-four members of the Child Hygiene Association, only twelve are women physicians. There are no women on among the officers of the Medical Society of New York State or County, or of the Kings County Association. I have not looked up the case in other States.

Note 2.—In the League of Women Voters membership is by individuals or by affiliated leagues, the dues being $1 for single memberships, or 50c for each member in leagues, five delegates being allowed from each league plus one extra delegate for every ten members There is an advisory council from other affiliated leagues.

Note 3.—The National Health Council has rooms at the Pennsylvania Terminal Building, 370 Tenth Ave., New York. All health bodies are thus under one roof, with easy access to library, stenographer, statistics, etc. Nine Associations now belong to this Council, including that of public health nursing. Why not the N. W. N. A?

Digitized by Google

ANNUAL REPORT OF AMERICAN WOMEN'S HOSPITATS†

Read at Annual Meeting, Boston, June 11, 1921

By Dr. Esther P. Lovejoy, Chairman.

A. W. H. in Serbia.

A report of the work of the American Women's Hospitals from July, 1919, to April, 1920, was made at the annual meeting of the Medical Women's National Association, which took place in New Orleans last year. The following paragraph quoted from that report will serve as a connecting link between the years 1919-1920 and 1920-1921:

"Hospital buildings were assigned by the Serbian Government to the American Women's Hospitals at Veles and Pristina. Lack of transportation facilities made it impossible for Dr. Gray to secure the supplies that had been promised her at Paris, and she was obliged to open the hospital at Veles with only fifteen beds. With patients waiting to enter the hospital, she scoured the country in an effort to find beds for them. This distressing situation, however, has been relieved by a loan of beds from the Serbian Child Welfare Association.* These beds will be returned as soon as the supplies, including three hundred beds, which Dr. Bonness brought from France to Serbia, can be delivered. Fortunately, it was possible to care for dispensary cases, and as early as the latter part of January from 100 to 150 patients were being treated daily. A report, dated March 20th, shows that 8,628 cases had been treated."

The call for work in Serbia came at the time when the American Women's Hospitals was considering the matter of withdrawing from France. The Army had partly demobilized and French physicians were available for civilian service in devastated terrtory. Dr. Hurrell and Dr. Bonness recommended that a small hospital at Blerancourt be donated, as a free gift, to the American Committee for Devastated France and the rest of our hospital supplies be sent to Serbia. Dr. Frances Cohen, who was appointed Commissioner by the Executive Board in the early part of 1919, investigated the status of the work of the American Women's Hospitals in France and reported on same. At the beginning of 1920 a hospital of forty beds at Blerancourt was donated to the American Committee for Devastated France, and Dr. Hazel Bonness, who had been directress for the American Women's Hospitals in that district, arranged for the transportation to Serbia of the larger part of our hospital supplies. These supplies, including ambulances and X-ray equipment, were shipped on the S.S. "Roye" from Marseilles. This vessel burned with her entire cargo in the harbor of Salonica, with the result that the work of the American Women's Hospitals in Serbia was handicapped for months. Indeed, it was necessary to fill ticks and care for patients on

†The part of Dr. Lovejoy's report which was read at the meeting of the New York State Society and which appeared in May number of the Journal is omitted from the report as read at Boston at Dr. Lovejoy's request.

*Whereas, the quoted paragraph above is quotation from last year's report, fact of case is beds were supplied by Serbian Government—not Serbian Child Welfare Association.

Digitized by Google

the floors of the hospitals because it was impossible to secure hospital furniture. These obstacles, however, only lent zest to the undertaking, and within a few months the equipment had been entirely replaced by the American Red Cross and other agencies, and the work was in good running order.

In a general way, the plan followed in France by the American Women's Hospitals and also by the American Red Cross was adopted in Serbia. Hospitals and dispensaries were developed at Pristina, Strumetza, Frisovitch, Prilep and Veles. In addition to this, work was conducted for brief periods at Guilan and Urasavitch.

American Women's Hospitals, Prilep, Serbia.

In developing the Preventorium and Children's Hospital at Veles, the American Women's Hospitals departed from the plan generally followed in Europe by relief organizations. This hospital, at the present time, has 170 beds, and we are advised by impartial observers, as well as by our own people, that it has a high standing for efficiency and economy of administration. The purpose in the beginning was to establish a preventorium for children, but the necessities of the country made the place a children's hospital. We are surely justified in believing the flattering reports regarding this place, for the Serbian Government has offered to contribute 45,000 dinars monthly toward its support. From the beginning of the American Women's Hospitals service in Serbia, the Government has paid a stipend for military patients, but this definite sum that is pledged for the Children's Hospital at Veles came as the result of a rumor that the American Women's Hospitals might possibly withdraw from the country.

Extensive inquiries have been made, and, as far as we are able to ascertain, this is the first time that a foreign government has contributed to the support of relief work conducted by any group of American women. This is the highest possible tribute and strongest possible plea for the continuation of the American Women's Hospitals service in Serbia.

It is important to remember, in this connection, that the American Red Cross has just established twelve new child welfare centers in Serbia, and it is quite likely that the children requiring long periods of hospitalization or surgical treatment will be sent from these centers to our hospital at Veles. This, however, has not yet been decided upon, but in view of the fact that the Red Cross has been very generous to the American Women's Hospitals in Serbia and that the Children's Hospital at Veles is the only children's hospital in the country, the chances are that this plan will be adopted.

A nurse's training school has been conducted at the Veles Hospital, and the results have been so encouraging that an American organization interested in medical education has offered to bring several of the members of this class to the United States for the purpose of completing their training.

Dr. Etta Gray has been in charge of the work in Serbia since July, 1919. Dr. Lilla Ridout and Dr. Mary Bercea, who also sailed in July, 1919, are still on duty, and Dr. Ridout has charge of the hospital and dispensary center at Prilep. Dr. Irene Tognazzini, who has charge of the hospital at Pristina, is also in her second year of service. These women are devoted to the work and expect to remain indefinitely. Dr. May T. Sout, an oculist we sent over, has done a large number of eye operations with good results. Scientific care in eye cases has not been available, and for that reason a large number of neglected cases of cataract had accumulated which Dr. Stout operated upon, in many instances

Digitized by Google

Dr. Lilla Ridout with nurses and dispensary patients at A. W. H. at Prilep, Serbia.

restoring sight to people who had been blind for years. At the present time we have two surgeons there—Dr. Gray, who is in charge of the service, and Dr. Marguerite White, who was sent over quite recently. Dr. White served as a surgeon with the Malta Command of the British Forces for three years during the war, and is therefore unusually well qualified to work in the Mediterranean country. When the American Women's Hospitals withdrew from active service in France, Dr. Hazel D. Bonness and Dr. Ellen Cover went to Serbia, and have just finished a year's work there.

In addition to the medical women selected to serve with the Red Cross and other organizations, the American Women's Hospitals has equipped and sent overseas seventeen medical women and twelve nurses for its own service in the hospitals and dispensaries in Serbia. Most of the routine work in the hospitals and dispensaries is done by native nurses in training.

In view of the fact that the Serbian Government, through its Ministry of Health, is carrying part of the expense of the Veles Hospital, it has been suggested by members of the Board of the American Women's Hospitals that one or more Serbian women physicians be found, if possible, and trained in our service in order that the work may be left in the hands of medical women of that country when the personnel of the American Women's Hospitals is withdrawn, in the hope and expectation that the Serbian Government will continue to carry on the work with the Serbian medical women in charge.

Some of the Serbian reports have been lost in the mails, but those received show that over 50,000 consultations have been conducted in the dispensaries and hospitals in Serbia by the personnel of the American Women's Hospitals; 25,806 separate diagnoses have been made, and more than 2,400 patients have been admitted to the hospitals, over 900 of which were surgical cases.

A. W. H. in Asia Minor.

The American Women's Hospitals has selected and equipped all the medical women who have served with the Near East Relief Committee. During 1919-1920 Dr. Elsie R. Mitchell and Dr. Clara Williams were financed by the American Women's Hospitals with the help of the Women's Christian Temperance Union. They were stationed in the Caucasus at a town called Etchmiadzin and cared for a large number of orphan children. To reach this place it was necessary to pass through Batum, Tiflis and Erivan, under the shadow of Mt. Ararat, where Noah landed in the Ark. This territory is now held by the Soviet Armenians.

Dr. Gladys Carr, of Brookline, Mass., Dr. Caroline Rosenberg, Dr. Mabel E. Elliott, of Benton Harbor, Mich., Dr. Elfie Graff and Dr. Ruth Parmelee sailed from New York in the early part of 1919. Dr.

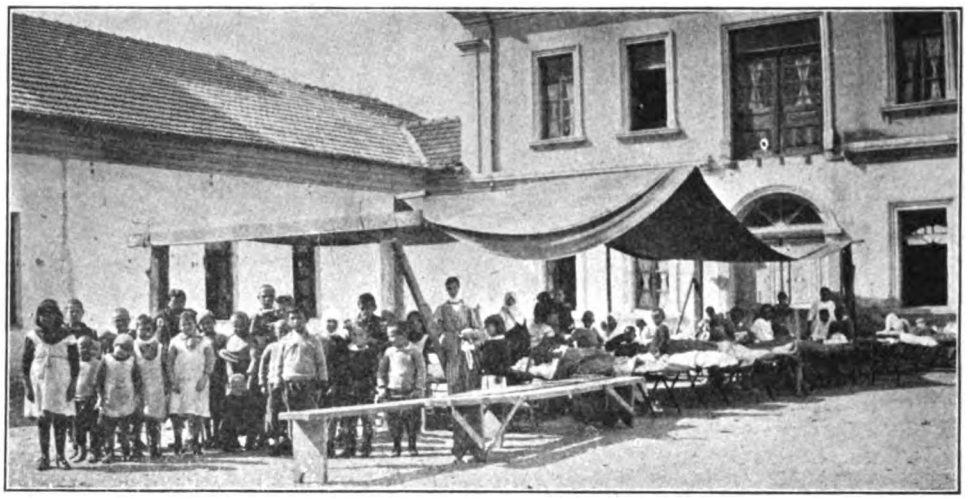
Digitized by Google

Parmelee is the daughter of missionaries, and was born at Trebizond. She and Dr. Graff are still in service with the Near East Relief Committee.

Dr. Emily Clark MacLeod has distinguished herself in the service of the American Women's Hospitals. During 1919 she represented the American Women's Hospitals in the Massachusetts campaign, and raised a large amount of money which helped to establish the work in Serbia, which has been so successful. She was equipped by the American Women's Hospitals, and reporting for duty with the Near East Relief Committee at Constantinople in August, 1919, was assigned to Malatia, where she took charge of a general hospital, dispensary and orphanage. Her success can be fairly estimated by the fact that a thousand people petitioned for her return after she had been transferred to Harpoot. In October, 1920, Dr. MacLeod co-operated with the Greek Government in caring for Greek refugees at Batum, Georgia. Twelve refugee camps and two hospitals were established there, Dr. MacLeod having charge of all the medical work. During the months of this very interesting service, she was hoping for a call to India. About the first of the year this call was received, and we are anticipating an interesting report of her work in that Far Eastern country.

At the request of the Near East Relief Committee, Dr. Mabel E. Elliott was appointed director of our co-operative work in Asia Minor. Dr. Elliott was first sent out to Armenia by the American Women's Hospitals in February, 1919. She had charge of the hospital and medical work at Marash during the Turkish siege of that city. Her diary, written under fire and covering the period from January 25, 1920, when the fight began to February 10, 1920, when she and the rest of the personnel, including Mrs. Powers, who is now with the American Women's Hospitals in Serbia, retreated with the French forces, is a thrilling narrative.

This co-operative work between the American Women's Hospitals and the Near East Relief was to have been established at Trebizond in the new republic of Armenia. The personnel was selected, equipped and sailed, but before they reached their destination Wrangel's Army had been defeated and thousands of Russian refugees were pouring into Constantinople or anchored off shore in the very ships in which they had escaped. The refugee ships became death traps, funeral barges, from which the bodies of those who died of pestilence and starvation were cast into the sea.



Court of Children's Hospital, Veles.

By the end of last year the Bolshevists were occupying Armenia and Azerbaijan, and it looked as though Trotsky might come marching through Georgia at any time. The Turkish Nationalists were also troublesome, and for these reasons the Trebizond plans were abandoned, and a hospital and dispensary service was established at Ismid at the head of the Gulf of Ismid, an arm of the Sea of Marmora. Ismid was the old Necomedia of Byzantine days. It was the capital and metropolis of that country for many centuries.

Conditions at Ismid were shocking when

Digitized by Google

Dr. Elliott took charge of the hospital at the beginning of the year. Large numbers of children were dying from deprivation and exposure in the refugee camps. Typhus, tuberculosis, smallpox and tracoma were prevalent. In the isolation room at the hospital she found four cases of typhus and one case of smallpox. There were cases of meningitis, and the activities of the Kemelist soldiers provided military surgery.

In addition to the hospital and dispensary at Ismid, clinics are being conducted at Derindji and Bardazac. Tabulated reports for the months of January, February and March show that 9,242 patients have been treated in the dispensaries and 443 have been cared for at the hospital at Ismid. Colonel Coombs of the Near East Relief Committee and Dr. Elliott are both of the opinion that this work should be conducted indefinitely. The following is quoted from a recent letter received from Dr. Elliott:

"We had patients lying about everywhere on the floor last month, and it looks as though we are going to have to do the same thing this month. We have been running about forty typhus and forty pneumonias for some weeks. * * *

"I wonder if the people in America realize what the magic words 'American Women's Hospitals' mean to these people out here?"

In order to avoid the zone of military activities ,the original plans of the American Women's Hospitals with the Near East Relief Committee were changed, but peace is not established in the world, and it is impossible to foretell where the next battle will take place. Ismid seemed peaceful in January; by April that territory had become the fighting ground of the Greeks and the Turks.

A. W. H. in France.

The American Women's Hospitals, as part of its service in France during the war, helped to sustain a dispensary for children conducted at Levallois-Perret, an industrial center in the Paris district. It is highly desirable to make this work permanent, and to this end the rest of the fund available for France, together with something over $16,000 donated by the National American Woman Suffrage Association, will be devoted to the building of a dispensary for children at this place.

On account of the unstable condition of money, materials and labor, the building of this dispensary has been delayed, but Mademoiselle Bassot, who is in charge of this work, has reported recently that the work will begin very shortly. This is a very important center. The directress has been in America at Hull House, the Henry Street Settlement and other health and social centers studying American methods, and it is felt by the members of the board that this dispensary will be a fitting memorial to the work of American women physicians in France.

One of the wonders of the war was the way in which the women of the countries involved came forward and assumed the work that had previously been done by men. Many organizations of American women engaged in war service. Units were assembled and sent overseas. Most of these activities subsided with the war, but the work of the American Women's Hospitals, organized by the Medical Women's National Association, has gone on from year to year and was never more important than at this time.

The value of this work has been recognized at home and abroad with the result that we have received help from other organizations. This has made the continuation of the work possible, and the Executive Board wishes to express its grateful appreciation to the American Red Cross for the substantial support in money and supplies; to the American Relief Administration for its generous gift of food in 1920 and clothing credit for 1921; to the National American Woman Suffrage Association; to the Community Chests of different cities; to the Auxiliary Board of the American Women's Hospitals; to a large number of women's organizations of the United States; to many individual contributors, one of whom has contributed $30,000 toward the work of the American Women's Hospitals; to the Veles Community; to the Zecho-Slav Mission; to the Daniels Lumber Company; to the American Serbian Relief; to the S.H.S. Child Welfare Association; to the Prince Morton Fund, and to the Serbian Ministry of Health for the helpful co-operation extended to the American Women's Hospitals.

Digitized by Google

THE HOSPITAL AT PRISTINA

Dr. Irene Tognazzini, Director

Dr. Irene Tognazzini is a native of California, graduated at Stanford University Medical Department 1916, and has been in charge of the hospital at Pristina for the past sixteen months, this being one of the four hospitals in Serbia which are under the general direction of Dr. Etta Gray. Dr. Tognazzini after much urging told the following story of "her hospital."

When Dr. Gray sent me to Pristina to establish the hospital there, the very barest possible beginning toward such an establishment had been made. We had it all to do, and very little to do with, but we were not expecting to walk into a model hospital, and we found such a spirit of cooperation on the part of the authorities—civil and military—in Pristina that from the very beginning we could go ahead feeling that the whole town was with us, and that of itself afforded us inspiration to tide us over the hard places.

The building assigned to us for use had been the harem of the richest Turk in the village, and was built around a court, or patio, where we have flowers throughout the spring and summer. Of course, a good deal had to be done to get it into condition. We had to scour and scrape and disinfect and whitewash and make war on insect pests on a scale unknown in this country. The entomologist would find Serbia all his most ardent hopes could desire as a field for active operation. We are acquainted with some of the bugs that make life a burden in Serbia, but they have a few of their own, and the Serbian flea is in a class all by itself. While it doesn't light on you with "a dull sickening thud," there is a distinct sense of impact, followed up by a boring operation. In Serbia nobody travels without a can of petroleum and four smaller cans in which to place the bed-posts: oil is then poured in, and unless the "B-B's" are so hungry that they crawl up to the ceiling and drop down there is a chance of a night's sleep. That is, there is a chance for sleep if the rats and the mice are not too active. When one lady anxiously asks another, "Have you any powder?" the article is not intended for the human nose, but for the inhuman mouth of any one of several varieties of parasites that make life a burden.

And yet it is possible to get rid of these pests, and that is one of the lessons we are teaching the Serbian women. They think all Americans are rich, but when they find that we are not rich, but resourceful, they became much interested in the results we are able to achieve by the use of a little ingenuity. Many of these people live in a kind of adobe houses, which are nothing more than a box with one hole—the doorway. Only the better class have windows. In these unventilated places they sleep and cook and live. When we began putting some of our patients in tents there was grave, if unvoiced, disapproval. When we moved our own cots on to the porch and began sleeping there the amazing news traveled so fast that the Prefect came to investigate, and even when he saw the beds he could scarcely believe his eyes. Already they see that the patients who are given the open air as many hours a day as possible are improving faster than those who remain within the hospital walls, and we hope they will make a trial of the plan on their own account.

"What a people!" they say. "They stay in a warm room all day and then go out into the cold to sleep! Did anybody ever hear of such a thing!"

Most of our furniture is made of boxes, and it is not the elaborate "box furniture" you have over here, sand-papered and polished and painted. If we get it well-planed we think we are lucky. My boudoir is made of two petroleum boxes nailed against the wall and curtained, and they stand behind elegant (?) draperies of plain sheeting, which possesses the advantage of being easy to wash.

They know nothing of laundries, and when some kind soul suggested that we might use the abundant water power for an electric light plant and a motor for a laundry, I had a vision of the maimed

Digitized by Google

The American Women's Hospitals at Pristina, Serbia (formerly a Turkish harem). The American flag which floats over this building was made from strips of colored calico and the stars sewed on by hand.

fingers on many willing but most unskilful hands. They have no washboards and never even heard of a wringer. Ours is very strictly a "hand laundry."

We do very much need electricity, for Serbia is a country where there are no "safety-first" signs, and the only way to "play safe" is always to be prepared for the worst. I remember one night a woman was brought in desperately wounded in a bandit raid. It was the merest chance that we could save her by operating at once; so we got her into the operating room and brought in all the oil-lamps and candles and lanterns we had, and the whole array was no arc-light, and there were the heavy shadows that kind of lights cast, not to mention the imminent danger of fire if we used ether. The poor soul died before we could prepare her for the operation, and small wonder since the shots had cut through her liver, stomach and abdomen.

The country people come into town for market days, bringing whatever they have to sell—fruit or vegetables or chickens or lambs or eggs—and the bandits way-lay them on their way home and take their money from them. There are nearly always casualities the night after market day, and we have learned to expect them.

The Standard Oil can is the one omnipresent article, used for everything and adapted according to our needs. Each member of the staff has two in her room—one for clean, one for dirty water. Cut in two they make very good foot tubs and arm dips. They serve as wash boilers, and we pack our surgical dressings into such a can and send it to the town bake oven for sterilization. We used them for canning fruit and vegetables, and they afford an excellent shower bath. The most elaborate use to which the can has been put was the conversion of a large one into a distillery for water. The water supply is so frequently tainted that we have to use distilled water. When I explained the situation to the one lone apothecary, he explained that he could get it in a few days, but it would be better to "wait till it rains," the fresh rain water being comparatively inocuous. We didn't want to wait, and it looked like a long dry spell, so we called in a tinner who has developed considerable skill in carrying out what seem to him very astonishing directions, and he installed a coil of pipes and a faucet, and the apparatus has worked very well.

Necessity has been the mother of a good many inventions with us. You cannot go

Little Nevinka.—Plaster applied by Dr. T. at Pristina. This child could not sit up nor walk until after application of cast. It is made as a corset so can be removed for bathing. The child gained much in weight.

Digitized by Google

THE HOSPITAL AT PRISTINA

Dr. Irene Tognazzini, Director

Dr. Irene Tognazzini is a native of California, graduated at Stanford University Medical Department 1916, and has been in charge of the hospital at Pristina for the past sixteen months, this being one of the four hospitals in Serbia which are under the general direction of Dr. Etta Gray. Dr. Tognazzini after much urging told the following story of "her hospital."

When Dr. Gray sent me to Pristina to establish the hospital there, the very barest possible beginning toward such an establishment had been made. We had it all to do, and very little to do with, but we were not expecting to walk into a model hospital, and we found such a spirit of cooperation on the part of the authorities—civil and military—in Pristina that from the very beginning we could go ahead feeling that the whole town was with us, and that of itself afforded us inspiration to tide us over the hard places.

The building assigned to us for use had been the harem of the richest Turk in the village, and was built around a court, or patio, where we have flowers throughout the spring and summer. Of course, a good deal had to be done to get it into condition. We had to scour and scrape and disinfect and whitewash and make war on insect pests on a scale unknown in this country. The entomologist would find Serbia all his most ardent hopes could desire as a field for active operation. We are acquainted with some of the bugs that make life a burden in Serbia, but they have a few of their own, and the Serbian flea is in a class all by itself. While it doesn't light on you with "a dull sickening thud," there is a distinct sense of impact, followed up by a boring operation. In Serbia nobody travels without a can of petroleum and four smaller cans in which to place the bed-posts: oil is then poured in, and unless the "B-B's" are so hungry that they crawl up to the ceiling and drop down there is a chance of a night's sleep. That is, there is a chance for sleep if the rats and the mice are not too active. When one lady anxiously asks another, "Have you any powder?" the article is not intended for the human nose, but for the inhuman mouth of any one of several varieties of parasites that make life a burden.

And yet it is possible to get rid of these pests, and that is one of the lessons we are teaching the Serbian women. They think all Americans are rich, but when they find that we are not rich, but resourceful, they became much interested in the results we are able to achieve by the use of a little ingenuity. Many of these people live in a kind of adobe houses, which are nothing more than a box with one hole—the doorway. Only the better class have windows. In these unventilated places they sleep and cook and live. When we began putting some of our patients in tents there was grave, if unvoiced, disapproval. When we moved our own cots on to the porch and began sleeping there the amazing news traveled so fast that the Prefect came to investigate, and even when he saw the beds he could scarcely believe his eyes. Already they see that the patients who are given the open air as many hours a day as possible are improving faster than those who remain within the hospital walls, and we hope they will make a trial of the plan on their own account.

"What a people!" they say. "They stay in a warm room all day and then go out into the cold to sleep! Did anybody ever hear of such a thing!"

Most of our furniture is made of boxes, and it is not the elaborate "box furniture" you have over here, sand-papered and polished and painted. If we get it well-planed we think we are lucky. My boudoir is made of two petroleum boxes nailed against the wall and curtained, and they stand behind elegant (?) draperies of plain sheeting, which possesses the advantage of being easy to wash.

They know nothing of laundries, and when some kind soul suggested that we might use the abundant water power for an electric light plant and a motor for a laundry, I had a vision of the maimed

Digitized by Google

The American Women's Hospitals at Pristina, Serbia (formerly a Turkish harem). The American flag which floats over this building was made from strips of colored calico and the stars sewed on by hand.

fingers on many willing but most unskilful hands. They have no washboards and never even heard of a wringer. Ours is very strictly a "hand laundry."

We do very much need electricity, for Serbia is a country where there are no "safety-first" signs, and the only way to "play safe" is always to be prepared for the worst. I remember one night a woman was brought in desperately wounded in a bandit raid. It was the merest chance that we could save her by operating at once; so we got her into the operating room and brought in all the oil-lamps and candles and lanterns we had, and the whole array was no arc-light, and there were the heavy shadows that kind of lights cast, not to mention the imminent danger of fire if we used ether. The poor soul died before we could prepare her for the operation, and small wonder since the shots had cut through her liver, stomach and abdomen.

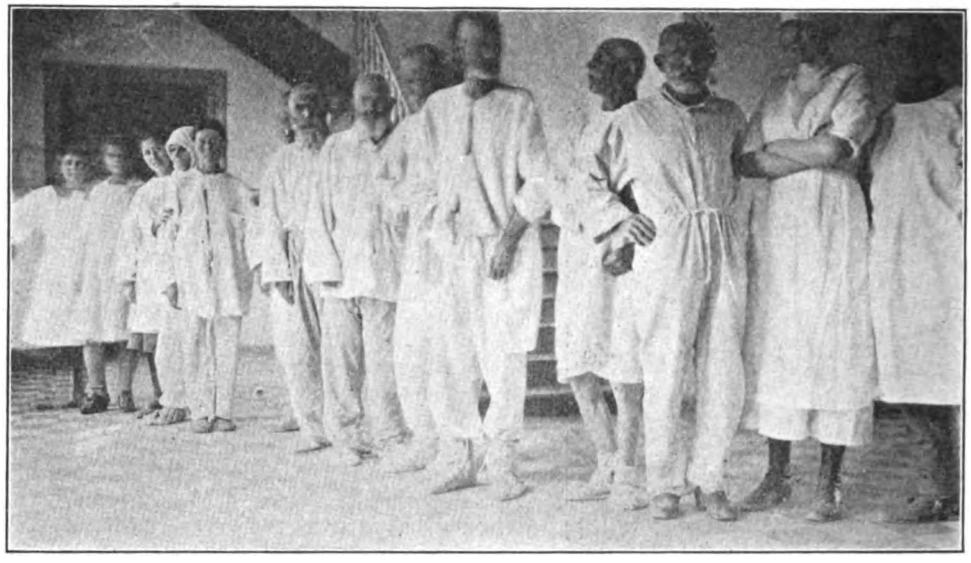
The country people come into town for market days, bringing whatever they have to sell—fruit or vegetables or chickens or lambs or eggs—and the bandits way-lay them on their way home and take their money from them. There are nearly always casualities the night after market day, and we have learned to expect them.

The Standard Oil can is the one omnipresent article, used for everything and adapted according to our needs. Each member of the staff has two in her room—one for clean, one for dirty water. Cut in two they make very good foot tubs and arm dips. They serve as wash boilers, and we pack our surgical dressings into such a can and send it to the town bake oven for sterilization. We used them for canning fruit and vegetables, and they afford an excellent shower bath. The most elaborate use to which the can has been put was the conversion of a large one into a distillery for water. The water supply is so frequently tainted that we have to use distilled water. When I explained the situation to the one lone apothecary, he explained that he could get it in a few days, but it would be better to "wait till it rains," the fresh rain water being comparatively inocuous. We didn't want to wait, and it looked like a long dry spell, so we called in a tinner who has developed considerable skill in carrying out what seem to him very astonishing directions, and he installed a coil of pipes and a faucet, and the apparatus has worked very well.

Necessity has been the mother of a good many inventions with us. You cannot go

Little Nevinka.—Plaster applied by Dr. T. at Pristina. This child could not sit up nor walk until after application of cast. It is made as a corset so can be removed for bathing. The child gained much in weight.

Digitized by Google



Dr. Stout with group of patients at A. W. H. to have their eyes operated on for cataract.

down town and lay in a fresh supply of surgical instruments if one happens to be missing. We needed "retractors," and after considering the general build of a common silver table fork, and having recourse to our trusty tinner, we made very excellent substitutes by bending the tines about half an inch from the end at a sharp angle; and since we had few forks, we had the handle bent at the other end, so as to make this humble kitchen utensil serve as both a sharp and blunt retractor.

We haven't done these things as a matter of economy, but because we couldn't buy what we needed at the time we needed it. We do economize—I think women always do—but all sorts of emergencies arise without a moment's warning, and we have to rise with them and meet them with such means as we have. I do think the reaction on the minds of the people is a good thing. They learn that we are not to be stopped by the lack of the most approved machinery for getting things done, and they learn also that speed sometimes means the life of the patient. They go the Spaniard with his "manana" one better, and like to wait for "the day after tomorrow."

Our first patient was a little boy who came to us in rags, and rags in Serbia are quite different from our idea of rags in the United States. They are not a mere tear or so in a garment, nor the substantial remain even of a garment. They are shreds and streamers and tatters. They do not cover the nakedness, let alone afford warmth to the body, and they are very fashionable in Serbia, in the sense that many people wear them. When our boy was cured we dressed him up as best we could and put upon him a royal scarlet American sweater, such an article as he had never even dreamed of possessing, soft and very warm; and he went out to spread the wonderful tale of the miraculous cures and the wonderful American women at the hospital. He explained that we could cure everything, and the patient would soon discover that we could give him the proper pill for whatever ailed him.

The sick came themselves if they were able, and were brought in jolting, springless ox-carts, or carried in loving maternal arms, and we have done the best we could. Even in little country places, if a Serbian is too poor to buy medicines he can get an order from one of the officials and go to the apothecary and have his prescription filled; and they have county physicians who work very hard. They have set out to make Serbia a healthy country, as it should be with its wonderful climate, and a soil that grows fine fruit and vegetables. We have not suffered there from a lack of food, although the flour is not very good and the bread consequently not up to our standards, but they do not understand food conservation at all. We have tried to prevail on them to eat their green corn when it reaches the delicious "roasting-ear" stage, and some of them have tried the hazardous experiment, but at first we found it difficult to prevail on them to

Digitized by Google

Dr. Tognazzini preparing a child for plaster cast. This tripod was made from a New York model Dr. T. carried in her memory.

even sell it to us, the farmers insisting that until it got hard it was "poisonous."

The Serbians are an example of what war does to a people. They have averaged at least one war for every ten years of the last century. If they did not have a marvelous vitality they could never have survived, because war takes off the strongest and steadily depletes the blood of the nation. I have come to have a great respect and a real affection for the Serbs. It would be strange if we did not, because, in addition to the money which the Serbian Government gives Dr. Gray to help keep our work going, the local authorities do everything they can to help us. They lent us military prisoners to make roads and help with necessary buildings. They send us soldiers now and then to help us, and once when there was a new mayor, who didn't understand and refused a request for men because that was street-cleaning day in Pristina, the Prefect sternly rebuked him, and told him to let the streets wait, but the hospital couldn't wait, and whatever we asked for must be done at once. I wonder how many American hospitals have ever had such an experience. That is the kind of appreciation that makes every one of us want to do her very best for these people.

Unless one has seen the need, it is scarcely possible to comprehend it. There is such poverty and misery and despair that the wonder is they have the courage to go on at all, and sometimes they do not. There was one man brought in to us with his four children, all in a state of collapse. He explained that for two weeks he had cared for his sick wife and children all alone, with no help. His wife died, the children seemed dying, and he wondered whether he would be able to care for them until they perished, or whether his failing strength would be gone, and he would follow their mother, leaving them to die alone.

When he went back to his home after a few weeks in the hospital with all four children well and happy because for the first time in their little lives they had had plenty to eat and were warmly clad, and their bodies were clean and free from vermin, and he knew where he could get help if he should again need it, he could find no words adequate to express his feelings, and that is but one of many cases. When a peasant came to the hospital with his cow, because we would know what to do for any ailing creature, he was paying us the highest compliment in his power. We were there to heal and to relieve suffering.

Last year when we wanted to celebrate the Fourth of July, we had no flag, but we were able to buy red, white and blue calico; so we made our own flag and put it up with the Serbian flag over the hospital. Every Serb will remember that flag, and there will be a great celebration when we raise the new one I am going to take back as a result of the generosity of the women at the convention of the Medical Women's National Association in Boston. It is to us the most beautiful flag in the world; and I am glad and proud to know that to Serbian eyes it stands for all that is unselfish and noble. Under its folds they have found healing and comfort and sympathy and understanding and graciousness, and so they, too, love it and think of it as in some sense their own.

Woman Physician Dies at Age of 101

Dr. Elizabeth Cohen, of New Orleans, died May 28, 1921, at the age of 101. Last year the Journal printed her picture and short account of the celebration of the one hundredth anniversary of the birth of this pioneer medical woman, with incidents taken from an eventful and interesting life. Dr. Cohen, up to a few months before her death, enjoyed the full possession of all her faculties.

Digitized by Google

TREASURER'S REPORT

To the Executive Board of the American Women's Hospitals:

The auditor's report of the American Women's Hospitals for the year ending March 31, 1920, showed a balance in our treasury of $68,859.42. Since that time fourteen months' work has been accomplished. The auditor's report of May 31, 1921, shows a balance of $79,142.80 with which to begin the new year's work, plus a gift just received from the American Relief Administration of 10,000 complete outfits for the Serbian children in the care of the American Women's Hospitals. This gift is worth at wholesale approximately $50,000. Had the money been given to the American Women's Hospitals to purchase such supplies as is represented in this gift, it would probably not be possible to secure them for less than $100,000.

Briefly stated, this means that fourteen months' remarkable work has been accomplished by the American Women's Hospitals, and the organization is $10,283.38 richer than when this work began, fourteen months ago, plus the gift promised by the American Relief Administration, which is worth at wholesale $50,000. Therefore, it is conservative to say that we are beginning the coming year with over $60,000 better financial standing than we had at the beginning of last year's work. This is due to efficiency and economy in the service of the American Women's Hospitals on both sides of the ocean.

Respectfully submitted,
(Signed) SUE RADCLIFF,
Treasurer.

TWO LETTERS—BOTH ILLUMINATING

Dear Mrs. Rockhill:

You will remember Dr. Laura T. Meyer, who made a report of the Serbian work last year at New Orleans. She had just returned from Serbia at that time.

The enclosed has just been received from her, and while there are medical women of that kind in the world, things are all right. I wish there were more of them.

Cordially,
ESTHER LOVEJOY.

5565 Echo Street,
Los Angeles, Cal.
May 9, 1921.

My dear Doctor Lovejoy:

It is with pleasure that I hear of the excellent progress and success of the American Women's Hospitals in Serbia. I have a first-hand appreciation of what success means there with the countless obstacles met on every hand. It is a source of much gratification to me to know that Dr. Stout, the eye specialist, has accomplished such wonderful results. No one knows better than I how sadly her work was needed there, and how grateful the blind ones are to have their sight restored.

I am very glad indeed to add my little mite for the furtherance of this special branch of the work.

Enclosed please find check for $500 (five hundred dollars), with my blessings to the American Women's Hospitals and the people of Serbia.

Very sincerely yours,
LAURA T. MEYERS.

"Health and the Rural Teacher," by Mabel S. Olrich, M.D.—Attention is called to the need of courses in health education in the training schools for teachers. Last year the Red Cross undertook to place in the teachers' county institutes of one State especially trained instructors to give talks on health education, and to give the teachers such physical examinations as are commonly made by county nurses in rural schools. Nearly 3,000 rural teachers were examined in this fashion, while 2,000 more heard the health talks. Among the first 1,000 teachers examined 1,106 defects were found. The investigation has proved that we can hope to go only a limited distance in our campaign of health education in the schools until provision is made whereby no teacher shall be certified before she has had a thorough examination by a reputable physician, and until the teacher's equipment shall include a far better health training than the schools are today prepared to supply.

A Children's Library has been established in Madrid by decree of the Minister of Public Instruction. The idea was suggested to Spain by the children's libraries in the United States and England.

The Lancet.—Founded 1823—issued weekly—annual subscription $12—the oldest medical paper in the world. The Lancet will hereafter be published by the Oxford University Press. Subscriptions to be mailed to American addresses should be sent to the Oxford University Press, 35 West 32d Street, New York. Editorial communications should be sent to Oxford University Press, Amen Corner, London, E. C., England.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to
MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

NO MEDICAL WOMEN IN HOUSE OF DELEGATES OF A. M. A.

In the report of the Boston meeting, elsewhere in this issue, the writer reminds medical women that there were no women physicians in the House of Delegates this year. That this is usual rather than unusual was brought out in a discussion in connection with this matter, when it was found that only one medical woman present could remember that there had been a woman physician in the executive body of the A. M. A., as she had been that representative a number of years before.

That medical women should be represented in the councils of a body of which they are a component part, and by virtue of their number and importance in the profession, is obvious to all—but year after year this condition exists and nothing is done to change it.

This Association now numbers among its membership medical women of distinguished ability and large experience, whose advice and judgment would be valuable to any organization; and they should represent medical women in the American Medical Association, as well as represent the section from which they come.

We trust that this matter will be taken up by the Councillors and Executive Committee of our Association, and that next year a goodly representation of medical women will be in the House of Delegates.

COMMENCEMENT OF WOMAN'S MEDICAL COLLEGE AND MEETING OF ALUMNÆ ASSOCIATION

The seventy-second annual Commencement of the Woman's Medical College of Pennsylvania was held June 15, 1921.

The Commencement address was given by Dr. Walter B. Cannon, of Harvard University. Luncheon was served at the College at 1 p. m. in honor of Dr. Cannon and the graduating class, which was followed by an informal reception.

The Forty-Sixth Annual Meeting of Alumnæ Association of the Woman's Medical College of Pennsylvania

Was Held at the College Building, Philadelphia, June 16 and 17, 1921

Thursday, June 16th

MORNING SESSION

Business Meeting, 10 o'clock
(For Members Only)

Reports of Officers; Appointment of Auditors; Report of Board of Censors; Report of Standing Committees; Report of Graduate Council.

Scientific Program, 11 o'clock
(For Members and Guests)

1. President's Address,
   Lida Stewart-Cogil, M.D., '90
2. "Racial and Sex Inertia,"
   Charlotte Abbey, M.D., '87
3. "Report of the Woman's Medical College of Pennsylvania,"
   Martha Tracy, Dean, '04
4. "Report of the Alumnæ Representative,"
   Caroline M. Purnell, M.D., '87
5. Oral Hygiene and the Hospital Patient,"
   Alice Norton, D.D.S., Philadelphia
   (by invitation)

   Discussion opened by
   Edwin Cornish, D.D.S., Philadelphia
   (by invitation)

Luncheon in Gymnasium at 12:30

AFTERNOON SESSION

Scientific Program, 2 p. m.

6. "League for Voluntary Parenthood,"
   Mrs. Mary Ware Dennett, New York City
   (by invitation)

   Discussion opened by Kate W. Baldwin, '90
7. "Progress of Surgery of the Chest,"
   Geo. P. Muller, M.D., Philadelphia
   (by invitation)

   Open discussion.
8. "Ethmoiditis and Sphenoiditis with Eye Complications" (report of cases; lantern demonstrations).
   Margaret A. Warlow, M.D., '02

   Discussion opened by Mary Buchanan, '99

Digitized by Google

Thursday, June 16th

7:30 P. M.

Banquet, Rittenhouse Hotel

Tickets $4, may be secured from Drs. Hughes, Auge or Hockaday.

Note.—Come and shout for the Woman's Medical College of Pennsylvania.

Friday, June 17th

MORNING SESSION

Business Meeting, 10 a. m.

(For Members Only)

Unfinished Business.

New Business.

Report of Woman's Hospital,
Mary Getty, M.D., '90

Report of College Hospital,
Mary Spears, M.D., '16

Report of West Philadelphia Hospital,
Mary R. Lewis, M.D., '11

Report of Y. W. C. A. Miss Faith Reed

Scientific Program

(For Members and Guests)

9. "The Endocrine Changes in Pregnancy,"
Mary E. Lapham, M.D., '00
Discussion opened by
Frances C. Van Gasken, M.D., '90
10. "Present Status for the Treatment of Leprosy in the Hawaiian Islands,"
Miriam Bitting-Kennedy, M.D., '89
11. "End Effects of Radium in Gynecological Cases,"
Catharine Macfarlane, M.D., '98
12. "The Modern Diagnosis and Treatment of Syphilis" (a film demonstration, by courtesy of Public Health Education, Harrisburg, Pa.)
Rose Hirschler, M.D., '99

Luncheon in Gymnasium at 12:30

Friday, June 17th

AFTERNOON SESSION

Scientific Program, 2 p. m.

13. "Preventive and Protective Work for Girls in a Police Department,"
Lieutenant, Metropolitan Police Force, Washington,
Mrs. Mina Van Winkle, Washington, D.C. (by invitation)
Discussion opened by
Ellen C. Potter, M.D., '03
14. "A Modern Conception of the Psychoneuroses,"
Alice E. Johnson, M.D., '05
Discussion opened by
Frieda E. Lippert, M.D., '89
15. "Social Hygiene in its Relation to Public Health,"
Rachelle Yarros, M.D., '93
Chicago

ADJOURNMENT.

MME. MARIE SLODOWSKA CURIE
and
MARTHA TRACY, M.D.,
Dean of Woman's Medical College of Pennsylvania

At the College, Philadelphia, May 23, 1921, when Mme. Curie received the honorary degree of Doctor of Medicine, conferred upon her by Mrs. Wilfred Lewis, President of the Corporation.

ADDRESS BY DR. TRACY

Members of the Corporation, Faculty, Alumnæ, Students of the Woman's Medical College of Pennsylvania and Friends:

We are met this afternoon for a few brief moments to do honor to a distinguished guest from a foreign land—a woman to whom such ceremonies in themselves mean little, but who, intensely appreciative of the co-operation of American women in forwarding her scientific work, has graciously come to this country that we may honor ourselves in paying tribute to her unparalleled achievements.

Digitized by Google

There is a peculiar significance in this meeting.

This, the oldest medical college of women in the world, conceived and founded over seventy years ago, brought through the years of struggle against poverty, antagonism and prejudice to its present honorable state, guards jealously its name, and does not lightly set its seal upon the brow of eager applicants for recognition.

Once only in its history has an occasion similar to this gathered together—corporation, faculty, alumnæ and friends. Forty-two years ago the president of this college conferred the honorary degree of Doctor of Medicine upon Rachel L. Bodley, then Dean of the Faculty and Professor of Chemistry at the College, thus singled out for the honor because of her scientific achievements, as well as her devoted services to the institution, which was then emerging from obscurity to well-deserved public recognition.

In our broader, our international outlook today, it is similarly appropriate that the Woman's Medical College of Pennsylvania, from its hard-won position in the first rank of American medical schools, should greet with profound sympathy and due reverence this woman citizen of a fellow republic who has likewise won, through years of self-sacrificing devotion to research, her deserved position as the foremost of living scientists. It is therefore with full hearts, and with an overwhelming sense of the honor conferred upon this institution in her acceptance of our tribute, that we have asked for your presence with us today.

Because of her signal service to humanity in making available to the medical profession in the field of therapeutics the marvelous radio-activity of these newly discovered elements, we recommend her to receive the honorary degree of Doctor of Medicine.

Czecho-Slovakia.—On January 1, 1920, a law came into force providing for the opening of public libraries in all communities. Each inhabitant is to be taxed a certain amount for their support. Immoral literature, detective stories and American Indian stories are barred, and works attacking whole classes of the population or the Czecho-Slovak State. Libraries can not be maintained in houses where alcohol is handled.

Decrease in Juvenile Court.—A marked decrease in the number of children brought before the Juvenile Court is noted in the annual report of Justice Franklin Chase Hoyt of the Children's Court of New York City. During 1920 11,582 individual children were brought before the court, which is a decrease of over 2,000, as compared with last year; and 843 less than in 1916, which was till 1920 the lowest year on record. Justice Hoyt attributes the decrease to "the work of many organizations and the awakening of the public conscience and intelligence, the development of the probation system, and the intensive efforts of the coure itself." There was increase during the year of the amount of time spent on each case by the court, and in the number of investigations made by the Probation Bureau. Another reason attributed was the extraordinary weather conditions during the first three months of the year, which restricted the activities, not only of the children, but of the agencies through whom they are usually brought into court. There was also a decrease during the year in the number of children committed to institutions. Since 1911, the year before the establishment of the probation system, the saving made by the court in the reduced number of such commitments has more than paid for its entire budget.

New York Housing—A survey to ascertain how many people should be dispossessed, in order to enforce the health regulations and the sanitary code, has been made by the Department of Health of New York City. Between March, 1920, and January 1, 1921, overcrowding increased 7 percent. Of the 130,000 babies born in New York City last year, 100,000 were born in crowded tenements.

"At the Head of the Hollow," by John F. Smith, Professor of Social Science, Berea College Academy, Kentucky.

A description of conditions among the people who live at the heads of the long Kentucky valleys, far from the common lines of travel. The author suggests that progress might be made in helping the millions of "marginal" people who live in the remote regions of the country if the leaders of the organizations interested in all the various problems involved, such as housing, good roads, education, health, religion, etc., were to meet and work out a national program.

Digitized by Google

WORK OF THE A. W. H. IN ASIA MINOR

DR. MABEL ELLIOTT, Director

Last word of the work in Asia Minor as reported in letter received from Dr. Mabel Elliott, Director of this work, from Ismid, Turkey, written May 9, 1921. The report very clearly shows the importance of this branch of the work of the A. W. H.

Ismid, Turkey,
May 9, 1921.

Dear Doctor Lovejoy:

As the time for the annual meeting of the Medical Women's Association draws near, I am tempted to write you a rather concise letter in regard to our work and importance of it, so that they may get a message from Turkey and perhaps a better idea of the importance of our work.

Mr. Jaquith, General Director of Near East Relief in Turkey, told one of the workers in Constantinople the other day that he considered the Ismid work one of the biggest and most important pieces of relief work now being done in Turkey, and, as you know, the American Women's Hospitals is paying the salaries and assuming the responsibility of all medical work done in this area, which includes Derindje, Bardezag and Ismid regions. We have between twenty and twenty-five thousand refugees in Ismid alone, a large boys' orphanage in Bardezag, and a girls' in Ismid. There are five thousand refugees in Derindje.

Our work includes a 95-bed hospital, at present a 25-bed smallpox camp, a 50-bed children's preventorium which was started and had to be discontinued in Bardezag because the Turks and Greeks came into our "yard" to fight, and which is now being reorganized here), a weekly clinic in Derindje, a weekly clinic in Bardezag, a daily general clinic, a daily children's clinic, and a tri-weekly women's clinic in Ismid.

We are in close co-operation with the Greek Army and the Turkish civilian authorities. Today I have a conference with the chief medical office of the Greek division occupying Ismid, so that we may do more thorough sanitary work in the refugee camps (80 in number). Tomorrow I have a conference with the Turkish city doctor about the cleaning up of the city, which is one of the filthiest it has been my lot to see in the Near East. The A. W. H. has taken the responsibility of cleaning it. It remains to be seen how successful they will be.

In connection with the hospital we have a class of seventeen Armenian girls, all of whom were refugees during the war, and we are beginning to be proud of them already. Unfortunately, while they are girls of good family and natural refinement, they have had very poor educational advantages because of the war; so, in addition to their regular nurses' classes, we are giving them classes in Armenian reading and writing and arithmetic. We also have, what I consider the most important work for a woman physician in this country, a class in midwifery. Women here will not have men doctors, and as a consequence they are forced, even the wealthiest, to employ the native midwife of Turkey, who is a product of the darkest of the dark ages. Filthy in person and in habits, they are repulsive beyond measure. They deliver patients in the squatting position; as a consequence there are many women, between the ages of 16 and 20, with complete prolapsus uteri, after their first child. To stimulate labor pains they roll the patients on the floor, throw them across tables and otherwise maltreat them. It is anything but a dainty affair, I assure you, to clean up a patient who has previously had vaginal compresses of manure.

If any one has doubt as to our usefulness here, one would only need to come to our general clinic for one afternoon and see the wretched creatures who come crawling in, more dead than alive. Now, when there is active fighting on all sides of us between the Turks and the Greeks, we get, not only the wounded civilians, but many sick who have had to wait their opportunity to come when the way is clear of fighting soldiers or (worse) the bandits who follow in their trail.

As I write there is the continual sound of rifle, machine gun and big gun! There is only one solution for this wild and un-

Digitized by Google

civilized country, and that is the formation of a stable government. America turned its one good chance of helping to make it stable. Now all we, who have the interests of this country at heart can do, is to educate the people along all lines, and our part is to educate medically. For that reason I have asked the Near East Relief to allow me to thoroughly equip my hospital, and I am thankful to say they are doing it right royally.

We are going to have here in Ismid a show hospital. One that the native doctors can come to see, and go away with a vision of what a hospital should be, especially in the way of cleanliness, order and care of patients.

Now, Doctor, the great point is this: In order to make this education plan of any value, it must be carried on for a period of years—at least three—at the end of which time we will be able to give diplomas to a class of girls who have had a good nurses' training, and leave another class well on the way. At the same time an enormous amount of medical relief work will be carried on, and we will be filling a great need, as we are the only hospital between here and Constantinople on the one side and here and Konia on the other. I am sure the Near East Relief will carry on their side as long as we will ours. I would like to think that we would carry on for five years more.

The hospital which we are now taking over was a Turkish hospital, then a British barracks, then a Greek barracks. It was as near a wreck as anything could be and still be revived. I have had between fifty-five and sixty-five men work here for two weeks, and we are just beginning to see daylight. Every drain stopped with filth, every pipe broken and destroyed, etc.

A week from tomorrow I hope to move my patients up here. I am always keeping in mind, Dr. Lovejoy, that I represent, out here, the American Medical Women, and I earnestly hope to be able to carry on so that Greeks, Turks, Armenians, British and French, as well as our own Americans, may think well of us.

Trusting that this letter may give an inkling of the A. W. H. work in Turkey, I remain,

Cordially yours,
(Signed) MABEL E. ELLIOTT.

Transportation Problems in Serbia Makes Reconstruction Work Extremely Difficult

REPORT BY DR. EMILY McLEOD.

The difficulties of work in Serbia may be estimated somewhat when you know of the transportation problems and difficulties. Wishing to go through the new Serbia from Belgrade into old Serbia by the way of Salonica, I was obliged to take the boat from Ragusa, commonly known as the riviera of Austria, but now Serbian, to Barrie, Italy, a train overland to Brindisi, another boat to Pireus, Greece, transship to Salonica, now part of the Greek empire. From there, a very poor train service over the new frontier into old Serbia. On every hand we saw the destitution caused by the recent war, whole villages destroyed, windows out and a general appearance of poverty.

I reached Veles, Serbia, in the middle of the night on January 10th. There was snow on the ground and a downpour of rain and a mile of mud under foot. I inquired for a hotel in my sweet ignorance (there probably was none a day's journey). They told me if I was an American that possibly the American Women's Hospitals would take me in. I had inquired for a hotel because I did not want to trouble the people at the hospital at that late hour, but found no accommodations in town for any traveler. So in pantomine language, very bad German, and a few words of English, I got the luggage piled into the mail cart, which looked like a combination of one-horse chaise for decrepitude and hay-cart, and very ancient design in pattern. I sat on the front with the driver, and my feet were hanging down on the whiffle-tree in danger of the half-dead and half-alive beast in the shafts, and so we came to the Veles American Women's Hospitals.

My reception was all that one could wish, for by now it was 2 a. m., still raining, but Dr. Gray took me in, made me comfortable on a couch in the family sitting room, for every bed in the house was occupied by personnel, except the guest chamber, in which slept the Minister of

Digitized by Google

Health of Serbia. He had been spending the week end at the Veles Hospital, approving of the work and talking over the future possibility of work in Serbia.

They have in Veles a preventorium in which about a hundred crippled children are being cared for as well as convalescents from the main hospital. This single piece of work impressed me very much because of the need of these children. Many of them are orphans, and those not orphans of the poorest parents, unable to pay for care if there was any other place in the city. These cases included a large number of bone tuberculosis and other crippling ailments.

At the main hospital, which is largely surgical, there were eighty people in bed, and in the first-floor clinic rooms Dr. Cover was caring for from one hundred to two hundred patients in a morning. The clinics being held three times a week. The medicines here and dressing are entirely free, as in all other treatment at the hospital and preventorium, only the poor being treated so as not to interfere with the income of the few local doctors left in Serbia. In the surgical hospital most of the cases are kept for only a short time, and this especially in the case of children who are removed to the preventorium for convalescence. The grown people are sent as soon as possible to their homes. In this way a very large number of surgical cases are taken care of each month in proportion to the size of the hospital.

I had previously visited Belgrade, Brod and various other places in Serbia where relief work was being carried on, and this central plant in Veles, it seems to me, stands out as perhaps the finest piece of strictly medical work being done now in Serbia by a relief organization. The three other small hospitals, conducted by the American Women's Hospitals Committee, are equally efficient, but not so large.

It is of interest that the Minister of Education is by birth a Hertzegovinian (from that part of the country which is now part of the new empire), and had served with the Serbian Army during the war. This doctor is very strongly in favor of the American Women's Hospitals remaining in Serbia indefinitely. Twelve new welfare stations have been opened by the American Red Cross, and the relations between the American Red Cross and the American Women's Hospitals are most cordial, and it is possible that the surgery from these stations may be sent to the American Women's Hospitals at Veles.

I found in Belgrade that the American Women's Hospitals had a very good standing with the Serbian people as well as the British and other relief organizations, some of whom had already given large quantities of supplies for our work, and others were contemplating closing out their own work and giving the remaining supplies for the American Women's Hospitals.

(Signed) EMILY CLARKE MACLEOD.

The following resolution was passed at the fifty-second annual meeting of the American Medical Editors' Association, June 7th:

Whereas, The medical restrictions of the Volstead Act, together with its various administrative and other interpretations and rules and regulations and enforcements, etc., constitute in some of their effects, indictment of the medical profession and harrassment of the medical practitioner and the sick, and are obstacles to free pursuit of honest medical judgment and therapeutics, and have reacted to the detriment of society and the public health, and are opposed to public policy; and

Whereas, Some of these restrictions and rules and regulations and interpretations, etc., are not based upon concensus of medical experience and practice and established usage; and

Whereas, It is apparent that they have not been framed and interpreted and administered with full appreciation of all matters involved; and

Whereas, The precedent established by the Volstead Act in restricting medical practice should, if physicians value their therapeutic liberty, be met with a protest that will command attention; and

Whereas, The point at issue is the right of the physician to select his remedies, and to decide what doses of these remedies each patient requires; and

Whereas, This issue in no wise affects and has nothing to do with propaganda either for or against prohibition, but is purely a matter of preserving the necessary rights of the physician in the interests of public health and public policy; be it therefore

Resolved, That the American Medical Editors' Association protests against further undue regulation of therapeutic procedure by statutes or by administrative interpretation or regulation; and be it

Resolved, That the Association requests of the proper authorities a review and revision of such existing statutes or rules or regulations as may be unduly restrictive of the therapeutic judgment and procedure of physicians.

We ask this for the preservation of the necessary rights of the medical profession and in the name of public welfare and wise public policy.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 7

July, 1921

$3 per year in advance
Single Copies, 25 cents

GALACTOTHERAPY

By BERTHA VAN HOOSEN, A.B., M.A., M.D.,
Head of Obstetrics, Loyola University Medical School, Chicago

THE secretion of milk is dependent for its production on a mammary gland with its blood and nerve supply and a stimulus to imitate and control gland activity. Any defect or deficiency in this fourfold mechanism will result in a decrease in the quality or quantity of milk secretion.

The gross and minute anatomy of the mammary gland, as well as the source and arrangement of its blood vessels and nerves, is well understood, but the nature and composition of the stimulus is still unknown. Lactation in its most normal form will be found in the animal.

Among the lower animals lactation is so quickly established that it is the exception for the young to suffer any loss of weight after birth. The lower animals have no three or four-day period of waiting for the secretion of milk to appear, but are able to give their young sufficient nourishment from the moment of birth. The reason for this difference of function is doubtless not a simple matter. We can, however, point to one distinctive feature which is to be found instinctive in all animals, and not found in the human. I refer to the ingestion of the placenta by the animal mother immediately after the birth of the young. This act can be readily understood in carnivora, but it is not easy to explain in the herbivora.

The thought suggests itself that the placenta may furnish a harmone which will stimulate the secretion of milk. If this is correct, and if the placenta may be considered as providing a stimulus in the normal production of milk, the question arises, Can we obtain this harmone for the human mother, and when is the best time for its administration.

Through the experimental laboratory of Parke, Davis & Co., it has been possible to try out on the human mother the effect of dried placenta obtained from the cow as well as the dosage and time of administration. A report of this experimental work was published in 1916 in the "Transactions of the Tri-State Medical Society." Another report of the results from the use of placental hormone in ampule form by hypodermic injection was published in 1919 in the Illinois State Medical Journal. These reports were based on the records of my patients who were given the hormone, and who in my judgment gave conclusive evidence of the value of placenta as a galactagogue. I therefore classify placental hormone as a physiological galactagogue both on account of its production in the body and of its consumption in the animal. Our knowledge of the placenta is too meager to allow one to say that it furnishes an internal secretion and is one of the endocrine organs, but it is upon that hypothesis that the administration of placental hormone is based.

The following points are presented as a summary of my present knowledge on the administration of placental hormone:

1. Placental hormone in 60-grain divided doses administered in six hours has no deleterious effect on the patient.
2. 40-60 grains of the dried extract given in capsule form during the first six hours following delivery quickly stimulates the secretion of milk and the stimulation continues for three or four days.
3. If 40 to 60 grains are administered during or just before delivery, the milk appears on the first day.
4. If administered immediately after delivery (during the first six hours), the milk appears on the second day.
5. Painful congestion and turgescence of the breasts that often accompany the establishing of lactation is avoided by using placental hormone before, during or after delivery.
6. Placental hormone will stimulate the secretion of milk at any period of lactation if given in four or six 10-grain doses one hour apart and repeated every three or four days.
7. The milk secretion which tends to decrease on the seventh or eighth day may be maintained or increased by repeating the postpartum dose on the sixth day.

Digitized by Google

Health of Serbia. He had been spending the week end at the Veles Hospital, approving of the work and talking over the future possibility of work in Serbia.

They have in Veles a preventorium in which about a hundred crippled children are being cared for as well as convalescents from the main hospital. This single piece of work impressed me very much because of the need of these children. Many of them are orphans, and those not orphans of the poorest parents, unable to pay for care if there was any other place in the city. These cases included a large number of bone tuberculosis and other crippling ailments.

At the main hospital, which is largely surgical, there were eighty people in bed, and in the first-floor clinic rooms Dr. Cover was caring for from one hundred to two hundred patients in a morning. The clinics being held three times a week. The medicines here and dressing are entirely free, as in all other treatment at the hospital and preventorium, only the poor being treated so as not to interfere with the income of the few local doctors left in Serbia. In the surgical hospital most of the cases are kept for only a short time, and this especially in the case of children who are removed to the preventorium for convalescence. The grown people are sent as soon as possible to their homes. In this way a very large number of surgical cases are taken care of each month in proportion to the size of the hospital.

I had previously visited Belgrade, Brod and various other places in Serbia where relief work was being carried on, and this central plant in Veles, it seems to me, stands out as perhaps the finest piece of strictly medical work being done now in Serbia by a relief organization. The three other small hospitals, conducted by the American Women's Hospitals Committee, are equally efficient, but not so large.

It is of interest that the Minister of Education is by birth a Hertzegovinian (from that part of the country which is now part of the new empire), and had served with the Serbian Army during the war. This doctor is very strongly in favor of the American Women's Hospitals remaining in Serbia indefinitely. Twelve new welfare stations have been opened by the American Red Cross, and the relations between the American Red Cross and the American Women's Hospitals are most cordial, and it is possible that the surgery from these stations may be sent to the American Women's Hospitals at Veles.

I found in Belgrade that the American Women's Hospitals had a very good standing with the Serbian people as well as the British and other relief organizations, some of whom had already given large quantities of supplies for our work, and others were contemplating closing out their own work and giving the remaining supplies for the American Women's Hospitals.

(Signed) EMILY CLARKE MACLEOD.

The following resolution was passed at the fifty-second annual meeting of the American Medical Editors' Association, June 7th:

Whereas, The medical restrictions of the Volstead Act, together with its various administrative and other interpretations and rules and regulations and enforcements, etc., constitute in some of their effects, indictment of the medical profession and harrassment of the medical practitioner and the sick, and are obstacles to free pursuit of honest medical judgment and therapeutics, and have reacted to the detriment of society and the public health, and are opposed to public policy; and

Whereas, Some of these restrictions and rules and regulations and interpretations, etc., are not based upon concensus of medical experience and practice and established usage; and

Whereas, It is apparent that they have not been framed and interpreted and administered with full appreciation of all matters involved; and

Whereas, The precedent established by the Volstead Act in restricting medical practice should, if physicians value their therapeutic liberty, be met with a protest that will command attention; and

Whereas, The point at issue is the right of the physician to select his remedies, and to decide what doses of these remedies each patient requires; and

Whereas, This issue in no wise affects and has nothing to do with propaganda either for or against prohibition, but is purely a matter of preserving the necessary rights of the physician in the interests of public health and public policy; be it therefore

Resolved, That the American Medical Editors' Association protests against further undue regulation of therapeutic procedure by statutes or by administrative interpretation or regulation; and be it

Resolved, That the Association requests of the proper authorities a review and revision of such existing statutes or rules or regulations as may be unduly restrictive of the therapeutic judgment and procedure of physicians.

We ask this for the preservation of the necessary rights of the medical profession and in the name of public welfare and wise public policy.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 7

July, 1921

$3 per year in advance
Single Copies, 25 cents

GALACTOTHERAPY

By BERTHA VAN HOOSEN, A.B., M.A., M.D.,
Head of Obstetrics, Loyola University Medical School, Chicago

THE secretion of milk is dependent for its production on a mammary gland with its blood and nerve supply and a stimulus to imitate and control gland activity. Any defect or deficiency in this fourfold mechanism will result in a decrease in the quality or quantity of milk secretion.

The gross and minute anatomy of the mammary gland, as well as the source and arrangement of its blood vessels and nerves, is well understood, but the nature and composition of the stimulus is still unknown. Lactation in its most normal form will be found in the animal.

Among the lower animals lactation is so quickly established that it is the exception for the young to suffer any loss of weight after birth. The lower animals have no three or four-day period of waiting for the secretion of milk to appear, but are able to give their young sufficient nourishment from the moment of birth. The reason for this difference of function is doubtless not a simple matter. We can, however, point to one distinctive feature which is to be found instinctive in all animals, and not found in the human. I refer to the ingestion of the placenta by the animal mother immediately after the birth of the young. This act can be readily understood in carnivora, but it is not easy to explain in the herbivora.

The thought suggests itself that the placenta may furnish a harmone which will stimulate the secretion of milk. If this is correct, and if the placenta may be considered as providing a stimulus in the normal production of milk, the question arises, Can we obtain this harmone for the human mother, and when is the best time for its administration.

Through the experimental laboratory of Parke, Davis & Co., it has been possible to try out on the human mother the effect of dried placenta obtained from the cow as well as the dosage and time of administration. A report of this experimental work was published in 1916 in the "Transactions of the Tri-State Medical Society." Another report of the results from the use of placental hormone in ampule form by hypodermic injection was published in 1919 in the Illinois State Medical Journal. These reports were based on the records of my patients who were given the hormone, and who in my judgment gave conclusive evidence of the value of placenta as a galactagogue. I therefore classify placental hormone as a physiological galactagogue both on account of its production in the body and of its consumption in the animal. Our knowledge of the placenta is too meager to allow one to say that it furnishes an internal secretion and is one of the endocrine organs, but it is upon that hypothesis that the administration of placental hormone is based.

The following points are presented as a summary of my present knowledge on the administration of placental hormone:

1. Placental hormone in 60-grain divided doses administered in six hours has no deleterious effect on the patient.
2. 40-60 grains of the dried extract given in capsule form during the first six hours following delivery quickly stimulates the secretion of milk and the stimulation continues for three or four days.
3. If 40 to 60 grains are administered during or just before delivery, the milk appears on the first day.
4. If administered immediately after delivery (during the first six hours), the milk appears on the second day.
5. Painful congestion and turgescence of the breasts that often accompany the establishing of lactation is avoided by using placental hormone before, during or after delivery.
6. Placental hormone will stimulate the secretion of milk at any period of lactation if given in four or six 10-grain doses one hour apart and repeated every three or four days.
7. The milk secretion which tends to decrease on the seventh or eighth day may be maintained or increased by repeating the postpartum dose on the sixth day.

Digitized by Google

8. If placental hormone is given in 5-grain doses three times a day for one or two weeks previous to delivery, the action of the postpartum dose is more effective.

That we are obtaining placental hormone in its most effective form is a question for future experience to decide. I speak only of the bovine preparation and regard the dried extract in capsule as the most effective form for administration.

This stimulus to lactation, whether produced by placental hormone or some other substance, is only one part of a very complex mechanism. The other factors—gland, circulation, and innervation—must also claim consideration. For instance, if a patient has inverted nipples or a puny baby, the same result would not be obtained as with a patient who had well-formed nipples and a husky infant. If the mother has had a toxemia, a postpartum hemorrhage or a high forceps delivery, the effect on the mammary gland will be a reduction in milk secretion. The nervous patient usually secretes less milk than the phlegmatic, and mental disturbances produced by news of financial loss or death of a relative have often deprived the infant of its mother's milk.

In searching for a reliable galactagogue, I have given a trial to drugs, diet, heat applications, electricity, massage, Bier's hyperemic pump, absolute inactivity on the part of the mother, strong suction on the nipple, and many other means, but each in its turn has been found inefficient, unless I except placental hormone.

In connection with the subject of galactotherapy, I would criticize the custom of applying astringent ointments and lotions to the nipple in the months previous to delivery. I have many times witnessed the skin covering the nipple of patients who have used such remedies peel off like a callus and leave the nipple bleeding and sensitive. This invites foci of infection, and the secretion of milk is temporarily decreased and often permanently inhibited. Leaving the nipple to care for itself is preferable to anything that has so far been suggested. I often advise massage with the unoiled fingers to stimulate the circulation and render the skin of the nipple less sensitive.

The care of the nipple during lactation should also be more in accord with the accepted principles of modern surgery. The application of a saturated solution of boric acid to the skin for the purpose of disinfection would be ridiculed anywhere except in obstetrical practice, where it is the classical treatment for the nipple. We have so many non-toxic and reliable antiseptic solutions for the skin that it is easy to find a substitute for boric acid. The preparation of Abbott known as chlorozone, or the acriflavine of Boot, may be applied to the nipple after nursing, allowed to dry and the nipple protected between feedings with sterile gauze. There is no necessity for washing the nipple before nursing, for these drugs are harmless to the baby; and what is of importance, they are really capable of destroying such bacteria as may be found in the region of the nipple.

Another point for criticism is the breast binder which makes pressure over the mammary gland and often greater pressure over the nipple than over the periphery, and interferes with the proper circulation in the gland. Just why a woman should wear a breast binder during the first ten days of the puerperium, and on the fourteenth day or as soon as she is out from under the physician's care discard it altogether, is a difficult problem to solve. It is certain, however, that if pressure constantly applied to the breasts is the best treatment for the suppression of the milk, the application of the breast binder during the days when lactation is being established is liable to lessen the secretion of milk.

The highly organized system of the human mother adds a complication to galactotherapy, and for this reason I note with pleasure that anesthesia during labor to prevent nervous exhaustion and shock is a factor that is beginning to gain ground in obstetrics. It is hard to explain why no one is willing to perform or have performed on him an appendectomy, which is a simple operation, seldom requiring more than fifteen or twenty minutes without having some form of anesthesia; but a labor that is not longer than two hours is usually considered too easy to both with an anesthetic.

This attitude has come largely through the fact that the solar plexus begins labor and continues it to its completion irrespective of the patient's will or suffering, while an operation is a voluntary act and can be postponed until circumstances are suitable for its performance; but this is no reason for not bestowing attention for the relief of pain and discomfort during labor. Scopolamin, morphin, nitrous oxid, ether or chloroform all offer relief, and each has a place in the great field of normal as well as surgical obstetrics.

Digitized by Google

The nervous system having such an important role in lactation should receive attention before and after, as well as during delivery. The majority of mothers do not suspend their wifely duties except during the two weeks of the puerperium, and are not freed from the responsibilities of her household and children even during the puerperium. Compare this with the animal mother, who suffers no sexual approach during pregnancy or lactation, or the bird father who sits on the nest many hours during the day and personally feeds the young.

The importance of prenatal care and education of the mother cannot be overestimated, but how it can be best handled is still an unsolved problem. I would suggest as our best solution the hospitalizing of all maternity patients. My plan is to build on a site most easily reached in a thickly settled community of 5,000 to 10,000 people an institution equipped to care for about 500 normal maternity cases a year. The building should have a laboratory, rooms for examining patients, infant consultation and simple ward and delivery rooms, accommodating 20 to 25 patients with a nursery for the infants. In an adjoining or adjacent building there should be a creche for about 30 children from one to twelve years of age. The practical working of this would be as follows:

The prospective mother learns through the priest or a reliable authority the advantages of being confined in a maternity center in the neighborhood instead of in her own home. She makes application at the center and is received by a woman physician, who speaks the same language as herself. The physician makes an examination and determines the condition of the patient's health and the probability of a normal delivery. If a normal delivery is not likely, the patient is refused care during her delivery, but is given prenatal care and recommended to a good hospital. But if the delivery is expected to be normal she is given prenatal care, and in case she has children between one and twelve years of age they are brought to the institution each week for inspection and given cards recording the findings. At the onset of labor the mother is admitted to the maternity, while her small children are admitted to the adjoining creche. The creche is preferably in charge of nuns, but may be managed by trained nurses and kindergartners. The older children continue to attend the school in the vicinity, while the younger ones remain in the creche. Ten days after delivery, or when the mother is well enough to go home, she and her children are discharged from the institution, but the mother returns weekly with the baby to the infant consultation.

The expense of this institution should not be more than $25,000 a year, and should represent the cost per patient of the midwife's services plus the cost of the food for the patient and her children if she had been cared for at home. With 500 patients, at an aerage cost of $50 for ten days for herself and children at the institution, we have an income of $25,000, which means that the institution would be self-supporting.

In this way we will be giving the mother for a minimum fee hospital care by trained people, and providing care and supervision for her family of small children. She is relieved from responsibility during confinement, is educated in prenatal care and infant welfare, and is forewarned of abnormality in her pregnancy. The work now done by midwives in unfit homes will be done efficiently by a trained woman physician in a hospital without increase in expense to the patient.

GREAT BRITAIN

National Union of Societies for Equal Citizenship—Equal Guardianship of Parents

The great event of the month has been the successful second reading in the House of Commons of the "Guardianship, Maintenance, and Custody of Infants Bill" (an infant in law is a person under 21 years of age), on May 6th, without a division. There was comparatively little opposition to this bill, and we have reason to believe that such opposition as there was was silenced by evidence of the weight of public opinion behind the bill, indicated by the comprehensive list of women's organizations which was read by Colonel Greig in the course of the debate.

This list, collected by the N. U. S. E. C., included a very large range of societies and associations of women of the various political parties—the Unionist, Liberal, and Labor, the Women's Co-operative Guild, organizations existing for the social welfare of women and children as well as religious bodies.

Lady Astor, as usual, added spice to an otherwise stodgy debate. Those familiar with British Parliamentary procedure will realize that the second reading is only the first fence, and that the bill has still a perilous journey in front of it before it is safely placed on the Statute Book.

Digitized by Google

OFFICIAL REPORT

OF

ANNUAL MEETING MEDICAL WOMEN'S NATIONAL ASSOCIATION

Held at Boston June 10-11, 1921

Transactions in full as approved by Executive Board

FIRST GENERAL MEETING

Friday Evening, June 10, 1921

Meeting called to order at 8 p. m. by Dr. Martha Tracy, President.

The President called attention to two corrections in the Constitution as printed and circulated last year: Article VI, on Quorums, amended to read as follows:

"Article VI, Section 1. The members of the Association present at any stated meetings shall constitute a quorum for the transaction of business."

I therefore declare that the annual meeting of the Medical Women's National Association is now in session.

One correction should be made in relation to Article VII, which should be inserted to read as follows:

"Article VII. The "Medical Women's Journal shall be made the official organ of the Medical Women's National Association, and that the managing editor, Mrs. Margaret Rockhill, be made the honored guest at any regular meeting of the Association, with privileges of the floor at all times."

The first business before the meeting should be the reading of the minutes of the New Orleans meeting. Because these minutes have been printed in full, the Chair will entertain a motion to dispense with the reading of these minutes.

Dr. Bass: I move that the reading of the minutes be dispensed with. Seconded. Carried and so ordered.

The President: The next business in order is the appointment of a Committee on Resolutions to which we may refer for later report any resolutions that may be presented. I will ask Dr. Cogill, Dr. Manion, Dr. Bourdeau-Sisco and Dr. Noble to serve on this committee.

The President: The third order of business is the report of the President. I will therefore report as briefly as possible at this time what has been done by the officers of your organization during the year since our last annual meeting.

You will remember that at the last annual meeting our program, as stated, included the appointment of certain committees, a smaller number than had previously existed, because we believed we could concentrate within one committee the work of several by appointing Dr. Kate C. Mead chairman of a Committee on Organization to develop that work of the Association. Dr. Mead was authorized to organize this committee and to appoint such members to assist her as seemed wise, and to develop a plan for national organization which should tend to enlarge our membership.

The second committee appointed was one on Medical Opportunities for Women, the purpose of which was to investigate and to arrive at a more complete knowledge of opportunities for medical women throughout the country and to stimulate the opening up of other opportunities desirable for them to fill. Dr. Hopkins, of Texas, was appointed chairman of this committee, with Dr. Esther Parker, Ithaca, N. Y.; Dr. Elvenor Earnest, Kansas, and Dr. Evelyn Frisbie and Dr. Margaret Hammond serving with her. Dr. Hopkins is not with us, and has not filed a report.

The third committee appointed was the Medical Service Committee, which is known as the American Women's Hospitals, under the chairmanship of Dr. Lovejoy. That committee will presently report on its splendid work which is gaining for us gratitude everywhere—in this country and throughout the world.

The fourth committee on Health Education was appointed under the chairmanship of Dr. Anna L. Brown. That com-

Digitized by Google

mittee has not, however, succeeded in organizing in a very definite way, although the chairman is here to present to us certain reports of work being done by other organizations, with recommendations for our consideration.

A nominating committee was appointed, with Dr. Lenna L. Meanes serving as chairman. She will present her report later in the evening.

The Committee on Arrangements for this Boston meeting was appointed, with Dr. Edith Hale Swift as chairman, with authority to appoint her own local committee to assist in making these arrangements.

Further, there came to the Association during the year requests to appoint delegates to certain national conventions with which we are affiliated. First, from the General Federation of Women's Clubs meeting in Des Moines. It seems wise to choose these delegates from among women in the neighborhood. We therefore appointed Dr. Nellie S. Noble, Dr. Grace Doane and Dr. Mae Habernicht, of Des Moines, and they have submitted a report of the transactions. These reports will be given tomorrow. The Council of the General Federation of Women's Clubs is meeting this month in Salt Lake City, and we have sent a letter of appointment and credentials to Dr. Ada Faust, but have not yet learned whether she is able to represent us. The Women's Foundation for Health held a meeting in New York in January, at which the president of our Association and three delegates were present. The report will be presented at our morning session. The Women's Advisory Council of the Venereal Disease section of the Public Health Service asked your President to serve as a representative of this organization when the meeting was called in Washington early this spring. A report will be submitted later.

It was further asked that a representative be sent from this national organization of medical women to take part in the presentation ceremony of statues of the suffrage pioneers to the Capitol, held in Washington under the auspices of the National Woman's Party. Dr. Lockrey, of Philadelphia, was asked to serve, and she will give a report tomorrow of those ceremonies.

We were informed of a meeting of the National Council of Women, to be held in Indianapolis last April, and I regret to say I did not succeed in securing a delegate to attend that convention. We have therefore no report.

Last January a circular letter was sent to medical women of the United States who are not members of the Association. This letter was sent with the approval of the Board of Councillors with the thought of presenting to medical women the purpose of this organization and the reason why we think it has a function to fulfill, and asking them to join us in our work. As a result of the sending of that letter, which was followed up promptly by our Committee on Organization, 160 members have been added to our membership, and we are hoping the canvass will go on. That letter has brought in very concrete results in the shape of letters and comments of various sorts from women who are not members—from those favorable to organization and from those unfavorable to organization. The latter feel we should not exist because to them we represent an attempt to segregate women physicians from men physicians—an attitude which they deplore greatly. There are letters also from other physicians who are not qualified under our present membership because not members of the constituent county and state societies of the A. M. A., and letters from women who have retired and so are no longer eligible to active membership. The nature of these comments will be brought out by that committee in its report. At the Councillors' meeting this afternoon brief reports were received from our committees which presently will be given in full.

We received also a report of the treasurer which presently will be given to you, and we discussed at greater or less length certain problems which are before us relating to the future plans of the association in the work of its Medical Service Committee, Health Education Committee and Committee on Organization. We discussed also the fact that with our present dues it is very difficult to carry on active work of the Association, but nevertheless agreed that it was not wise to consider raising the dues at this time.

We received also a report from the editor of the "Medical Woman's Journal" expressing her earnest effort and desire to co-operate with this Association to serve as its official organ and her willingness to continue to receive our subscriptions at the two-dollar-a-member rate, which hardly serves to carry the Journal, and yet she does not wish to ask us for any higher sub-

Digitized by Google

scription at this time. She only asks us to show our appreciation by helping her to secure greater advertising contracts with the creditable pharmaceutical and other firms upon whom the support of the Journal so largely rests.

These constitute then the chief matters that have been before the Association this past year, and to bring these matters before your attention I will close my report at this time and proceed to the items in order.

The second item of business is the report of our secretary-treasurer, Dr. Gantt.

Treasurer's Report

Balance on hand June 1, 1920....		$100.39
Collected in dues.....		2259.05
Interest on deposits.....		1.73
Total receipts		$2361.17
(Disbursements)		
Printing	$492.62	
Clerical help	194.15	
Office supplies	12.90	
Express, telegrams, etc...	9.06	
Additional postage	14.41	
Organization committee .	30.56	
Mrs. Rockhill's expense to New Orleans meeting..	87.46	
Club dues	30.00	
Refund to members	1.19	
To Med. Woman's Journ.	1397.90	
		2270.25
Balance		$90.92

Dr. Gantt pointed out that her report was not quite complete up to May 31st, because at that time she had left home and a great many checks were coming in and have come in since she left. New members also had been received since that time, so that the report is rather incomplete. She then read her report. It was moved by Dr. Mead and seconded by Dr. Bourdeau-Sisco that it be accepted.

Dr. Van Hoosen asked what items made up the amount for printing.

Dr. Gantt: The printing of the circular letter sent out by the president amounted to $285.66. The printing of vouchers (which were used according to our method of paying bills during the last year), also the expense of printing Constitution and By-laws, $36.25: printing handled by the corresponding secretary, $170.71; printing for the Organization Committee, $9.75. In that item of printing the circular letter sent out is expense of postage, $79.18. An unusual amount of printing, which nevertheless seemed necessary, was done during the past year.

President: The motion is before you that Dr. Gantt's report be accepted. Carried and so ordered. At the meeting of the Board of Councillors this afternoon it was agreed to present the treasurer's report, when completed, to a professional accountant or auditor, and to present his report later in the Journal.

President: We are now ready to receive the reports of the active committees, and it has been agreed that the Committee on Organization shall have time limit of fifteen minutes; the Committee on Medical Opportunities a time limit of five minutes; on Medical Service, thirty minutes; and on Health Education, fifteen minutes. It seemed wiser to give reports this evening and to discuss new problems arising out of these reports tomorrow.

Report of Committee on Organization

Dr. Kate C. Mead then read the report of the Committee on Organization. It was moved by Dr. Mary Dunning Rose and seconded that the report be accepted.

Dr. Lovejoy: I was given credit for work in my district. As a matter of fact, I did not do a great deal there until Dr. Kimball had accomplished her work in the West, and so we got together and sent that letter all over the second district, and when we were informed that the National had no money to pay for it we found some "angels" to contribute stamps. There were thirty-one new members, but the credit should not come to me, as the result was accomplished largely by Dr. Kimball.

Report accepted and filed.

Report of Committee on Medical Organization for Women

The second order of business should be the reading of report of the Committee on Medical Opportunities for Women. As I said before, Dr. Hopkins has failed to file with us her report, so it must be read by title.

Report of Committee on Medical Service (American Women's Hospitals)

The third report is from the Committee on Medical Service, which has done magnificent work. Dr. Lovejoy, chairman, read this report, at the close of which Dr. Tognazini spoke briefly of her work in Serbia. Dr. Radcliffe then read financial

Digitized by Google

report of the committee. Moved, seconded and carried that the report be accepted and printed in full in the Journal.

Report of Committee on Health Education

Dr. Anna L. Brown, chairman of the Committee on Health Education, then presented the report of that committee after stating that in presenting the report at the meeting of the Board of Councillors in the afternoon it seemed best to omit some of the illustrative material. Dr. Brown added: "May I say that the group of physicians which has been working on the board of the Y. W. C. A. has been attempting to develop and administer a plan of work that is sound and one that could stand the test of the physician's office. Dealing then, as we have done, with people who are not sick, it has been our privilege to work out with a great deal of care and attention to detail ways in which we could help girls and women to rid themselves of various handicaps—traditional and acquired, and those which from time immemorial have actually existed in the experiences of women and girls. We have been compelled to watch rather carefully the results of the examinations made, and the results have been surprising to us. The Women's Foundation for Health, of which the Medical Women's National Association is an integral part, and the women's organizations comprising it, have felt a peculiar responsibility for testing methods. I am not using the word "test" in the sense of strict laboratory measurements, but in the sense of judging by actual, practical results, the value of the ideas we held. We have incorporated in our work three things as essential—a régime by which to live, prescribed by the physician who has made careful examination which qualifies her to prescribe; work which is prescribed by a thoroughly well-trained physical director as to posture, etc., and we have added to our staff a specialist on recreation which we prefer to call "re-creation." We have every reason to believe that play has quite as much to do with health as work has. Therefore, in our work we must combine that type of leadership which enables us to give the person or persons under our supervision opportunities for using the so-called leisure time profitably, opportunities to release the spirit to enter upon activities which develop the body and the mind, and which must result in a very great enlargement of the personality."

Dr. Rose: Has Dr. Brown any right, if she is not a member of the A. M. A., to act as chairman of a committee under our constitution?

The President: She was made chairman of the Committee on Health Education before the president realized that she was only an associate member of this organization. We asked her to become an active member in order to continue this work, and Dr. Brown at that time submitted to me names of certain women physicians whom she would like to have associated with her. I was not aware when I asked her to undertake this work that she was not an active member and was not in a position to become an active member, but at that time, when endeavoring to organize the work, it was impossible to appoint another committee.

The President: Do we accept this as a report of another organization than ours, accepting it as presented, as suggestive to this organization?

Dr. Thelberg: I move that we accept and record this report. You may remember that when Jean Paul Richter lay dying he said, "Give me a great thought that I may acquaint myself with it." This Women's Health Foundation has given it. We are an integral part of the Women's Foundation for Health as one of the fourteen organizations.

The President: I will entertain a motion that we accept this report and place it on file, and when we hear tomorrow the report of our own delegates to the meeting of the Women's Foundation for Health we shall be in a better position to discuss the matter. Acceptance of the report does not involve acceptance of the resolutions.

It was moved and seconded that the report presented by Dr. Brown be accepted as the report of an unorganized committee and placed on file in our minutes. Carried.

Report of Committee on Arrangements

Dr. Edith Hale Swift next presented report of Committee on Arrangements for Boston. Our task was to procure accommodations for the visiting women. Late in September I approached practically all of the leading hotels of the neighborhood for reservations in blocks of one hundred, then fifty or even twenty-five, or any block system that could be given us in neighboring hotels. I met with no encouragement. The hotels could more than fill their demand and would make no reservations ahead of time. They told us we could come in the spring, and if conditions had

Digitized by Google

changed they would consider it. In the spring they informed me that every available room would be taken, so I approached Simmon's College for dormitories. These, however, closed too late for our meeting. From the Emerson College dormitories here in the city we secured about ninety beds at a very reasonable rate. We had to guarantee the use of these rooms because they could have been filled easily by the men. So we guaranteed filling the rooms for six days in June. I have not an accurate report of the number of beds filled, but it approximates only thirty-five, leaving fifty beds unfilled. Reservations have been canceled at the last moment, and many in some cases days later than they were supposed to come. All apparently wanted single rooms with private bath on lower floor within a minute of Mechanics' Hall. We are therefore tremendously in debt. We charged $2.50 a night in order to cover carrying expenses and some anticipated loss. Other work of the committee has been the procuring of necessary aids, badges, automobile service, keeping of information bulletins, etc. Dinner accommodations have been arranged, toastmasters secured. Dr. Meredith, as toastmaster, is securing speakers for the banquet.

It was moved and seconded that this report be accepted.

Dr. Van Hoosen: Is the chairman of this committee also chairman on entertainment? This is the first time we have had any one appointed as chairman of an entertainment committee for the Medical Women's National Association.

It was stated by Dr. Gantt and from the floor by different persons that Dr. Bass had served in that capacity at meeting in New Orleans last year.

Dr. Van Hoosen: We have always had some one prominent enough to serve informally, but have never had any one appointed.

Dr. Lovejoy: Dr. Bartlett secured headquarters in Atlantic City. Dr. Swift has been most active and tireless in endeavoring to secure rooms for us, and it has been a very great distress to all concerned that the women have not taken advantage of the quarters so secured. The obligation remains to meet this indebtedness.

Dr. Ellen C. Potter: Do I understand that tomorrow we shall have some means of meeting this indebtedness? Will not persons who have engaged rooms without paying for them have to pay?

The President: It would seem so. In answer to Dr. Ellen Potter's question, our plan was to bring up ways and means of meeting this obligation.

Question called. Motion carried.

Report of Committee on Nominations

Dr. Meanes, chairman of Committee on Nominations, next read her report.

The President: This report having been received, nominations from the floor are in order, both for officers and councillors. Are there any further nominations for office of president-elect?

Dr. Thelberg was nominated from the floor for the office of president-elect and declined the nomination. It was moved, seconded and carried that nominations for the office of president-elect be closed.

Dr. Mary Noble, Dr. Willets and Dr. Barringer were nominated from the floor for office of first vice-president. It was moved, seconded and carried that nominations for the office of first vice-president be closed.

Dr. Martha Welpton and Dr. Bourdeau-Sisco, Dr. Kate Hurd Mead and Dr. Buchanan were nominated from the floor for the office of second vice-president. It was stated that Dr. Mead is going to be absent from the country during the coming year. It was moved, seconded and carried that nominations for the office of second vice-president be closed.

Dr. Bowman and Dr. Thelberg were nominated from the floor for the office of third vice-president. Dr. Thelberg asked that her name be withdrawn; she nominated Dr. Radcliffe in her place. Dr. Marion Craig Potter nominated Dr. Rosalie Slaughter Morton. It was moved, seconded and carried that nominations for the office of third vice-president be closed.

No nominations for the office of recording secretary-treasurer were made from the floor. It was moved, seconded and carried that nominations for this office be closed.

No nominations for the office of corresponding secretary were made from the floor. It was moved, seconded and carried that nominations for this office be closed.

The president announced that it was now in order to nominate from the floor members for the Board of Councillors to succeed those going out of office. The secretary then read a list of the Councillors in office, and then read a list of those whose terms of office expire with this session, as follows:

Digitized by Google

Dr. Bertha Van Hoosen, Dr. Margaret V. Fraser, Dr. Jessie K. Clark, Dr. Sara C. Buckley, Dr. Mary Louise Strobel, Dr. Ida L. Schell, Dr. Edith Hale Swift, Dr. Mathilda K. Wallin.

The President called attention to the fact that, under the new Constitution adopted last year, there shall be twenty-four councillors in addition to the officers of the Association, and that eight shall be elected each year to serve for three years or until their successors shall be elected and qualify. She further stated that vacancies this year will be created if some of the present councillors who do not retire are elected to other office. It will be necessary to wait until after the election to know how this matter stands.

The President then announced that nominations for members of the Board of Councillors were in order.

Dr. Mosher nominated Dr. Bertha Van Hoosen for re-election.

Dr. Jones nominated Dr. Ellen C. Potter.

Dr. Bourdeau-Sisco nominated Dr. Flora Pollack of Baltimore.

Dr. Morton: It is difficult to know how to nominate until we know who is elected to executive offices and who is not. Would it be in order to nominate Dr. Radcliffe for Councillor in view of the fact that she has been nominated for the office of third vice-president?

The president rules that it would be in order to nominate Dr. Radcliffe for Councillor, with the understanding that, if elected to office, her election as councillor would automatically disappear.

Some one from the floor asked if there was any ruling regarding the number of women eligible from a given locality. The president replied that no such ruling existed.

Dr. Kimball nominated Dr. Mary T. Green.

Dr. Morton nominated Dr. Barringer.

Dr. Thelberg nominated Dr. Gannett. (Later withdrawn.)

Dr. Van Hoosen: I think we should ask Dr. Gantt to look over the membership and select some one from St. Louis to be a councillor next year.

Dr. Buchanan nominated Dr. Margaret F. Butler.

Dr. Sherbourne nominated Dr. Ernest.

Dr. Manion nominated Dr. Lynch of Omaha.

Dr. Thelberg nominated Dr. Marks of St. Louis. As Dr. Marks has given up active practice and does not now reside in Missouri, her name was withdrawn.

Dr. Marion Craig Potter nominated Dr. Mary McLane. (Later withdrawn.)

Dr. Swift nominated Dr. Noyes-Kleinert. (Later withdrawn.)

It was moved and seconded that nominations for members of the Board of Councillors be closed. Carried.

The president announced that those who are paid-up members would receive a printed blank ballot for use in voting.

Dr. Radcliffe then read two resolutions sending greetings and expressions of appreciation to the American Relief Administration and the American Red Cross. These were referred to the Committee on Resolutions.

Dr. Mead moved that the Medical Woman's National Association urgently recommend passage of the Sheppard-Towner Bill. Referred to the Resolutions Committee.

Dr. Morton suggested that a memorial committee be appointed to bring before the Association at each meeting a fitting tribute to members who have died during the past year, and also a tribute to those women who are not members of the Association, but whose work has been significant to all women. Have the committee called a Memorial Committee.

The president suggested that Dr. Morton draw up a resolution embodying her idea for a memorial committee and hand it to the Committee on Resolutions.

Dr. Mead: How shall we pay our debt for rooms in Boston?

Dr. Parker: I wish to say that the room engaged for me was a single room, and I am glad to assume my share of responsibility and to express the belief that many of the medical women would prefer to arrange for their accommodations through the A. M. A.

Dr. Potter: We could not have gotten rooms unless they had been arranged for us. It is only a privilege to take these rooms.

Dr. Parker: Rooms could not be secured three weeks before the convention took place, for I tried and could not.

The President: Dr. Mead, do you care to make a motion?

Dr. Mead: How do we desire to pay this debt? I should say we have to assess ourselves.

The President: Dr. Swift, have you any suggestion as to how the bills should be met?

Digitized by Google

Dr. Swift: As early as possible tomorrow. Members have been asked to pay early tomorrow.

Dr. Morton moved that a letter be written to all who wrote reserving rooms, and from whom Dr. Swift did not receive letters cancelling reservation by Saturday night, June 4th, requesting them, in view of deficit, to pay what had been incurred in their names, and the rest divided among those here.

Motion was seconded by Dr. Bourdeau-Sisco.

Dr. Bass: We owe this money and owe it now, and cannot afford to send out letters to various members, and we are not certain they will pay anything when we send it out, and we shall only incur another expense and delay.

The president, upon being informed that the hall must be vacated at 10:30, asked for a motion to adjourn. Moved, seconded, and meeting adjourned.

SECOND SESSION

Saturday Morning, June 11, 1921

Meeting called to order at 10:10 a. m. It was announced that the first order of business would be the reading of reports of delegates to several organizations with which the National Association is affiliated.

The Secretary then read Dr. Nellie S. Noble's report of the convention of the General Federation of Women's Clubs held at Des Moines in June, 1920.

The President then asked the Secretary to read the letter of greeting coming from the new president of the General Federation of Women's Clubs.

The report was, on motion of Dr. Mead, seconded by Dr. Jones, accepted and ordered filed.

It was then moved by Dr. Jones that the report on elections be made a special order of business at 12:30. Seconded by Dr. Mead and carried.

The President announced that the voting would close at 12 and report made at 12:30. Dr. Potter, Dr. Meanes and Dr. Thelberg were asked by the Chair to act as tellers.

The President then called for the report of delegates to the meeting of the Women's Foundation for Health, held in New York last January. The delegates were Dr. I. T. Smart, Dr. Marie L. Chard, Dr. Alice P. Ford, Dr. Martha Tracy, ex officio. As none of the delegates except the president were present, Dr. Thelberg, who attended the meeting, read the report.

The report was accepted as read and ordered filed.

The President here called attention to the fact that Dr. Willets was not an active member of the Association, and therefore not eligible to hold office. Her name was thereupon erased from the board.

Dr. Kimball was asked to take the chair while the President presented a report on the Women's Advisory Council. She stated that this Council comprised a group of women appointed by the Public Health Service, primarily by Dr. C. C. Pierce, Director of the Venereal Disease Division. He calls together members of women's organizations to confer with him as to the best methods of co-operating in combating venereal disease. The president stated that she attended one meeting in March. She expressed regret that Dr. Yarros had been called to Washington, as she was familiar with the details of the whole plan, and expressed the opinion that it is desirable for this organization to go on record as desiring to co-operate in every way possible with the efforts of the Public Health Service for promoting education on these lines, and that we should do what we can to put local program committees of women in touch with this scientific and authorized information and suggestions as to how they may arrange meetings and programs to discuss with their members this very important subject.

Dr. Kimball, in calling for action on the report, stated: "I think as women physicians, and especially as women citizens, we ought to make this broad effort for the public good a distinct, straight duty. This is a straight way. Many things are fine, but a little outside our field. The Public Health Service is beyond question the public health service of the country.

On motion of Dr. Greene the report on the Women's Advistory Council was accepted and ordered filed.

The President then took the chair.

The President: The Surgeon General asked us a direct question, which I told him I would place before you: Is it better that he send his information bulletins direct to the offier representing you, or shall he be furnished with a list of State chairmen who shall receive these announcements to disseminate them locally?

Dr. Thelberg: I would advise both ways. What they are putting out is invaluable. We should know what laws are

Digitized by Google

being proposed, what laws passed, and we get the information as we could in no other way with these bulletins.

The President: Are our State chairmen in a position to receive this information for distribution?

Dr. Mead: In so far as we have State chairmen. There are 32 or 33 now. All are willing to work and anxious for work.

Dr. Thelberg: I move that the Surgeon General be asked to send this very valuable information issued so frequently and so authoritatively to the State chairmen, so far as we have State chairmen, and also to each member of the Advisory Council.

Dr. Jones seconded the motion.

Dr. Mead: I would propose as an amendment that copies be sent also to the chairman of the Organization Committee.

Dr. Thelberg accepted this amendment; also the seconder, Dr. Jones.

Dr. Southgate: Why is it that each individual member of the State organization could not receive it? All would be glad to. Many of us are very much in ignorance as to what is being done. The sooner we get this information the more quickly we can get to work.

Dr. Parry: It seems to me that the acceptance of that last suggestion would be covered by each person interested applying direct to the Surgeon General. There are a great many who would not read it at all.

Dr. Thelberg: Could we not ask him to send direct to the editor of the "Medical Woman's Journal" a copy of the bulletin? I think Dr. Pierce would be glad to do it. This was proposed as an amendment and accepted by the seconder, Dr. Jones.

The President then stated the motion as follows: Dr. Thelberg has moved that the Surgeon General be asked to send his bulletins to the State chairmen of the Medical Women's National Association, to each member of the Advisory Council, to the chairman of the Organization Committee and to the editor of the "Medical Woman's Journal." Motion carried, and it was so ordered.

The President then called for the report of our representative, Dr. Sarah H. Lockrey, who attended the ceremony of the presenting to the Capitol at Washington statues of the suffrage pioneers. In the absence of Dr. Lockrey, the report was read by Dr. Gantt, recording secretary.

The President: I wish to say at this time that Dr. Lockrey bore all of the expenses of our representation in Washington including cost of banner and wreath, and we owe her, therefore, I think, an additional vote of appreciation in connection with this matter.

Dr. Kimball: I would like to move a special vote of thanks to Dr. Lockrey for her representation and for her manner of doing it. Seconded by Dr. Mary Greene. Carried.

The President: The National Council of Women sent an invitation to their meeting of April 27th-29th, but no delegate was appointed. The meeting was held in Cincinnati.

Dr. Thelberg was asked to tell what this Council is in order that a motion might be entertained as to participation in its national conventions in which we are annually asked to take part.

Dr. Thelberg stated that the National Council of Women in America was founded in the late eighties in the interest of woman suffrage. It somehow or other became apparent that suffrage alone was not enough, and that the Council should be broader in its outlook. Eventually it took in all national societies of women in America. There are 31 in this Council, representing 20,000,000 women. Changes in organization are now under consideration looking toward international organization. In fact, an international meeting has already been held in Christiana, at which all countries except Germany were represented. Now, by virtue of your belonging to the National American Council of Women, you belong also to the International Council. The National Council carries on no independent work, but brings together various interests and prevents duplication of effort. I am chairman of the Committee of Public Health of the American National Council of Women. I sat at a table with 26 other women representing committees of public health from all those countries.

The President: The Chair will be glad to entertain a motion in regard to instructions as to whether delegates shall be appointed to take part in such national conventions.

The President: The President can appoint delegates, but the Association is not in a position to finance them.

Dr. Lovejoy: I move that a delegate be appointed to attend any national organization of standing which asks our co-operation. Motion seconded by Dr. Manion.

Digitized by Google

Dr. Thelberg: These meetings are held annually, and the international meetings every five years.

The President: The motion has been made and seconded that your officers be instructed to appoint one or more delegates to such national organization conventions of standing as may ask for our co-operation. Motion carried.

The President: The next matter is a matter pending when we were asked to adjourn last evening—the matter of financial arrangement to take care of our Boston obligations. Dr. Gantt then read Dr. Morton's resolution. Dr. Morton's motion re room deficit: It was moved by Dr. Morton and seconded by Dr. Sisco that a letter be written to all those who had written reserving rooms from whom Dr. Swift did not receive letters canceling reservations by Saturday night, June 4th, requesting them, in view of deficit, to pay the expense incurred in their names, and that the balance of the deficit should be raised from among those here.

This matter is pending and should be concluded at this time. There are fifty present now. Ten dollars from each would remove a large part of this deficit.

Dr. Swift was asked to state the amount of the deficit, and replied that accurate figures were not yet available, but that the deficit amounts now perhaps to $500.

Dr. Van Hoosen: I move that settlement of this matter be left with the Executive Committee. Seconded by Dr. Mosher. Carried.

Dr. Vietor then asked for the ruling of the Constitution and By-Laws in regard to offering an amendment to the By-Laws for the next meeting.

The President then read conditions governing change in Constitution or By-Laws.

The President then called for the report from Committee on Resolutions, Dr. Cogill, chairman.

(Copies of resolutions appear elsewhere in "Journal." In each case it was moved, seconded and carried that the resolutions be adopted.)

The President: Action must now be taken on the amendment to the Constitution which was formulated and presented in the mails one month before this meeting. In presenting this amendment, I will ask the secretary to read three letters typical of those which led to its introduction.

Dr. Gantt then read letters from Dr. Gertrude E. Heath, of Maine, Dr. Pauline Barton-Peeke, of Ohio, and Dr. Stella Q. Root, of Connecticut.

The President: I will ask the secretary to read the amendment which is now before you for vote.

The secretary then read copy of proposed amendment to the Constitution, Article III, Section 2, Active Members, as follows:

"The members in good standing of the constituent county, State and territorial medical associations of the American Institute of Homeopathy shall be eligible to active membership."

Dr. Van Hoosen: Does any one know how many women members there are in the American Institute of Homeopathy?

Dr. Craig Potter: About a hundred.

Dr. Alberta Greene: If we adopt this amendment we are getting into pretty deep water with the American Medical Association. We will find that our membership in the A. M. A. will be complicated by this action. The A. M. A. does not debar any one from membership in the A. M. A. as long as they do not practice partisan medicine, but whenever you put "Homeopath" on a card, you are practicing partisan medicine. If we make that amendment, the A. M. A. will not receive the member.

It was moved by Dr. Mary Greene, and seconded by Dr. Sherbourne, that the motion be laid on the table.

The President: The next business as listed by our Constitution would be any unfinished items of business from the Board of Councillors. This opens to us at this time the discussion of matters which came up in committee reports. The first report received was that of the Committee on Organization. The Chair will entertain any motion which bears upon the subject-matter of that committee or the work which that committee will undertake in the future.

Dr. Mead: I move that a committee be appointed at this time to investigate and report at the next meeting on a plan to consider affiliation of women's State associations with ours. Dr. Alberta Greene seconded the motion.

Dr. Alberta Greene: I take especial pleasure in seconding this motion because I feel strongly that we should make this National Association more general and of more general interest to the medical women of the entire country. It is our duty to promote interest not only in the membership and participation of the medi-

Digitized by Google

cal women in the United States, but to know what they are doing and to help them in their problems, enlarging their opportunities. In every way we should get in touch with the medical problems of women throughout the United States and do all possible to inspire them in their scientific work and to take part in local, State and national meetings.

Dr. Jones: I do not approve of this method of organization. I think we should come in entirely on the basis of individual membership through county and medical societies much more in line with the organization of the A. M. A. We will lose out on this other plan. We shall lose our membership dues on the individual. The "Journal" will not get as many subscriptions, and I do not think it is a wise thing to do. Let us keep to the basis of individual membership.

Dr. Mead: There are a great many people who write and state that they belong to so many societies that they can not afford another three-dollar society. We need the co-operation of every medical woman in the United States. If later decided that people may come in as associates on smaller fee, we could stand it. Perhaps they would come in, paying the whole fee. That is a matter for the committee to study and report upon, and need not be discussed here.

Dr. Lovejoy: It seems to me that to stop where we are without looking forward to further progress would be quite abnormal. We must move forward. I therefore am strongly in favor of appointing such a committee. We have now about 600 members. If we could make it 1,200 of as many women as are organized, at a lower fee, we would still be better off. The important thing is to have the closest association possible among the medical women of the world. Consider it and turn it down next year if we do not want it. The trouble is that we vote without consideration upon almost all things. It is a wise move to appoint this committee to report, and Dr. Jones is wise to let them know something of the sentiment of the people present today.

The President: It has been moved that a special committee be appointed to consider a plan whereby State or local societies may affiliate with this organization.

Motion carried.

The President: Is there any discussion on report of the Committee on Medical Service? No motion made.

The President: The next committee is Dr. Brown's. You have heard also the report of our delegates to the Women's Health Foundation. Is there any matter arising from those two reports on which you would care to take action at this time? No motion was offered.

The President: It is now in order for any member of the Association to bring in new business.

Dr. Parry: I would like to move that we honor our Association and Mme. Marie Curie by making her an honorary member of this organization. Seconded by Dr. Mosher.

The President then read conditions of honorary membership as follows:

"Art. III, Sec. 4. Honorary Members.—Honorary membership in this Association may be conferred upon distinguished women whose names are proposed by the Board of Councillors, and upon unanimous vote of the members."

and added:

"It would seem that this nomination must come from the Board of Councillors to the Association."

Dr. Mosher: Here is an exceptional case. Certainly we can depart from our usual custom.

The President: The Chair would rule that we can not act upon any nomination to honorary membership in this meeting unless such is recommended to us from the Board of Councillors. There is no way by which we can act contrary to our written Constitution.

Dr. Rose: Could not the Board of Councillors meet for a moment and propose her name?

The President: The meeting is adjourned for three minutes and a meeting of the Board of Councillors called.

Short special meeting of the Board of Councillors. Moved by Dr. Parry and seconded by Dr. Kimball that Mme. Marie Curie, of Paris, France, be recommended for honorary membership. Carried. Meeting adjourned.

After the three minutes' recess the meeting of the Association was then called to order. The President reported from the Board of Councillors that the name of Mme. Curie is named to this Association for honorary membership in this body on recommendation of the Board.

Dr. Southgate: I move that Mme. Marie Curie, of Paris, France, discoverer

Digitized by Google

of radium, be elected honorary member of the Medical Women's National Association. Seconded by D.r Mosher. Carried unanimously.

Dr. Cogill: We have a wonderful pioneer woman of medicine who is this year celebrating the fiftieth anniversary of her graduation from the Woman's Medical College who has done more than many to forward the needs of medical women. May we instruct the secretary to send a letter of congratulation to Dr. Anna E. Broomall on the fiftieth anniversary of her graduation? On motion it was resolved to send such letter of greeting to Dr. Broomall.

Dr. Lovejoy: At a recent meeting of the Medical Women's International Association the President was instructed, in case of a preliminary conference to consider the matter of a better scheme of organization for the medical women of the world, to extend invitations to all bodies of medical women in the United States with approximately fifty members or over, to send one member and one extra member for every hundred women over the first hundred. Accordingly I would ask the President of the Medical Women's National Association to send one delegate and an extra delegate for every hundred members. The date is uncertain because it is desired to have the medical women meet at the same time that the International Suffrage Alliance convenes, and the date of their meeting has been postponed.

The President: You have heard the invitation of the Medical Women's International Association that we send one delegate and one additional delegate for each one hundred members to take part in such meeting as may be called in the future.

Dr. Thelberg: I move its acceptance. Seconded.

The President: What is involved by this acceptance? Does it mean the payment of the expenses of delegates?

Dr. Lovejoy: It could not possibly mean that.

Dr. Thelberg: I regard this as an important bit of patriotic work—extension of the Americanization idea and a step toward internationalism.

Dr. Southgate: Has the International Association branches in other countries?

Dr. Lovejoy: At the present time there are about eight or nine countries that are represented. The organization, as you know, was founded in New York in 1919. Several nations have worked very actively. A small amount of money was given to a member in Italy who has organized quite extensively. Holland has quite a large number of members. It has been suggested by the British Federation that, prior to the regular meeting in 1922, 1923 or 1924, there should be a preliminary conference for the purpose of threshing out differences of opinion, in order that we may embody in the International Constitution the ideas of medical women from different parts of the world.

It being now 12:30 p. m., the President called for report of the tellers of election as ordered for that hour.

Dr. Ellen C. Potter (reading report of tellers): Thirty-seven ballots were cast—23 for Dr. Kimball and 14 for Dr. Swift as President-elect. The President, on being informed that Dr. Ernest and Dr. Lynch had a tie vote, cast a deciding vote for Dr. Ernest.

The result of the election was as follows:

President-elect—Dr. Grace Kimball.

First Vice-President—Dr. Mable R. Noble.

Second Vice-President — Dr. Martha Welpton.

Third Vice-President—Dr. Sue Radcliffe.

Recording Secretary-Treasurer—Dr. L. Rosa H. Gantt.

Corresponding Secretary—Dr. Isabelle T. Smart.

Councillors—Dr. Bertha Van Hoosen, Dr. Ellen C. Potter, Dr. Flora Pollack, Dr. Mary T. Greene, Dr. Margaret F. Butler, Dr. Elvenor Ernest, Dr. Martha Tracy.

The President declared the above elected.

The President: The next business is the installation of the President-elect. Dr. Bass was asked to step to the platform, and Dr. Tracy then formally installed her as president.

On taking the chair Dr. Bass spoke as follows:

Dr. Bass: The important thing is to "carry on." We must carry on the work of the four committees and extend our membership to include every woman admissible to this organization. Each should feel herself constituted a committee of one to try to get every woman of her State to become a member. Our State, which is small, has a membership of 100 percent. With reference to the Committee on Medical Service, you have heard its report and of the wonderful work it is conducting. This work should go on for the coming year at least, and, if necessary, still

Digitized by Google

longer, with the hope at all times of beginning to broaden our work at home. This work is as necessary as foreign work. The time has come when we must begin to think of home work. The Committee on Medical Opportunities has a big field. There is the question of locating schools that are co-educational or that might become co-educational. We want to hunt more women to study medicine. We have not enough women to fill the places. The places are waiting in most every State, and we should make it possible for women to study medicine and encourage, help and advise them. We should help women with funds as students and help them when they get out. The word "carry on" is more significant than it has ever been.

My first duty is to appoint a Nominating Committee for the coming year, and I appoint Dr. Katharine Manion chairman; Dr. Florence B. Sherbourne, Dr. Margaret F. Kuyk of Virginia, Dr. Edith Hale Swift and Dr. Norma Elles Israel.

The President: Dr. Bass has asked me to finish the few items of business remaining before us. The last motion was on the acceptance of the invitation of Dr. Lovejoy, President of the Medical Women's International Association, that the Medical Women's National Association appoint one or more delegates to attend such meeting of the International Association as may subsequently be called. The motion was carried.

Dr. Morton then secured the floor. I have felt that it would be desirable to bring before the National at this meeting a request for their endorsement, not only in the form of a resolution to create a new committee, but also of the actual spirit of the resolution. There are living today medical women who are so wonderful in the inspiration they have been to others, so closely allied to the pioneers, that a very important duty rests upon them. It seems to me that if we might impose upon these women who are connecting links between the pioneers and the women of today, we might have a history of the American Woman in Medicine. If Dr. Mary E. Bates, of Denver; Dr. Mary Smith and Dr. Eliza Rood, or Dr. Holmes Smith and Dr. Lindsey would associate with them women from their sections of the country to help in the work, this would be possible. Dr. Bass could appoint such other members as she sees fit, so that through the coming year we might get a history which might be published from time to time in the "Medical Woman's Journal" and then published as a book.

I therefore move that we request the incoming President to appoint a committee to compile the history of Medical Women in America and of American Medical Women in Foreign Fields, and that its report be published in the "Medical Woman's Journal."

Mrs. Rockhill: The "Journal" stands for the study of the record of women in medicine, if for nothing else. Our files are rich with information you could not get anywhere else. Our editors will gladly help in this work. This idea was suggested to me last year by Dr. Ellen C. Potter as an interesting feature for the "Journal" and something that would bring it before women. Such a compilation of facts is one of the outstanding needs of the "Journal." I begged her to take the work over and do it. She declined with regret because too busy. For such a committee as proposed to co-operate with the "Journal" would make excellent work possible. In preparing the articles for the "Journal" we should consider the shape and size of illustrations suitable for the book to appear later, so the plates and cuts may fit the size of the book and save expense. The pages can be made into plates and filed away. The "Journal" can be made the medium of securing subscriptions for the book so that you will not have to go ahead without some money.

Dr. Ellen Potter: It has been spoken of as desirable to have two or three lectures in women's colleges on the history of women in medicine. It would be easier if all this material were brought together.

Dr. Morton: I should like to request that Dr. Clara Marshall, former dean of the Woman's Medical College of Pennsylvania, be made chairman of this committee.

The President: Dr. Marshall has recently resigned from this organization, but that need be no bar to her participation.

Dr. Morton: I should like to incorporate the names of the women on the committee in the resolution.

The President: The Chair would rule that it is wiser to appoint the Committee on History of American Women in Medicine, and, if it is desired, in a later motion suggest to the incoming President that she appoint such and such persons. The motion before the house is that a Committee on History of Women in Med-

Digitized by Google

icine be organized, the reports of which issued by such committee to be published in the "Medical Woman's Journal."

Dr. Morton: I move that, with the approval of the incoming President, Dr. Clara Marshall be asked to be chairman of this committee; Dr. Mary A. Smith, of Boston, to represent New England; Dr. M. E. Bates, of Denver, to represent women of that region; Dr. Eliza Root or Dr. Holmes Smith, of Chicago, to represent the Middle West; Dr. Annie Daniels or Dr. Eliza Mosher, New York; and Dr. Lindsay, Lincoln, Neb. We request that the incoming President accept these names only as a suggestion; but in asking members to serve, be gracious enough to say that it was the wish of this organization in meeting assembled and that they will honor it by accepting. Motion seconded by Dr. Lovejoy.

Dr. Mosher suggested that the name of Dr. Ellen C. Potter be added. Motion carried.

Dr. Mosher then offered a resolution as follows:

"I hereby offer a resolution of respect and appreciation for the splendid services of Dr. Sara Creighton Best, of New York, recently deceased, in her work for the Executive Committee of the American Women's Hospital and her unselfish devotion to humanity."

Voted that this resolution be adopted.

Dr. Mosher then offered the following resolution:

"Inasmuch as we have but lately learned that one of our number, Dr. Rosalie Slaughter Morton, being in Paris on the day celebrating the armistice which ended the world war and in the name of American women physicians placed floral tributes in memory of the noble American dead upon a cenotaph beside the Arc de Triomph, I move that the organized medical women of America do here and now join Dr. Morton in making that act our own by a solemn, silent, rising vote."

The motion was seconded by Dr. Parry and adopted, the members rising and remaining silent for a moment standing.

Dr. Morton then spoke highly of the work of Dr. Alberta Greene in Serbia, saying how tremendously impressed she had been by the human quality in her work. Dr. Greene then spoke briefly of the work in Serbia.

Dr. Bass: I move that we express our appreciation and gratitude to our retiring President and other officers for their splendid work last year in advancing the work of this organization. Seconded by Dr. Potter. Carried.

Dr. Thelberg wished a special message to be sent to Dr. Smart and to Dr. Mead. Seconded. Carried.

Meeting aljourned.

REPORT OF AUDITOR OF MEDICAL WOMEN'S NATIONAL ASSOCIATION

Treasurer's Report for the Year June 1, 1920, to May 31, 1921

(Receipts)

Balance on hand June 1, 1920	$100.39	
Collected in dues	2259.05	
Interest on deposit	1.73	
Total receipts		$2361.17

(Disbursements)

Printing—		
For president, mimeographed letters and letterheads	$285.66	
For correspond'g sec'y, letterheads, envelopes, billheads, application blanks and proposed amendment	170.71	
For recording sec'y-treasurer, vouchers, constitution and by-laws and registration cards	36.25	
Clerical Help—		
President	39.00	
Corresponding secretary	113.33	
Recording sec'y-treas.	41.82	
Office Supplies—		
For corresponding sec'y, typewriter supplies	7.55	
For record'g sec'y-treas., loose leaf and treasurer's books	5.35	
Express, Telegrams, Etc.—		
For recording sec'y-treas.	9.06	
Additional postage for corresponding secretary	14.41	
Organization committee	30.56	
Mrs. Rockhill's expenses to New Orleans meeting	87.46	
Dues to National Council of Women	25.00	
Dues to General Federation of Women's Clubs	5.00	
Refund to member	1.19	
To Medical Woman's Journal	1397.90	
		$2270.25
Balance on hand May 31, 1921		$90.92

I hereby certify that I have examined the books of the Treasurer of the Medical Women's National Association and find that all funds received have been properly accounted for, and that all disbursements have been made on vouchers approved by the President, and that the above statement is true as set forth by said books.

E. O. FRIERSON,
Public Accountant.

Spartanburg, S. C., July 8, 1921.

Digitized by Google

REPORT OF ENTERTAINMENT COMMITTEE

EDITH HALE SWIFT, Chairman

The work of the Entertainment Committee centered about the securing of accommodations for women physicians. Although the attempt was made in September to induce the first-class hotels to reserve blocks of rooms, no satisfaction could be obtained. Four private houses in Balk Bay were later secured and accommodations offered at a very reasonable rate, with opportunity for meals. Announcement to this effect was made in the "Medical Woman's Journal." Many reservations were made, many canceled at the eleventh hour, some not claimed. Our obligations to the owners of the houses were therefore not met, and though final data is not yet in, we are hopelessly in arrears. A rough estimate makes the deficit $600.

Great courtesy was extended the committee by the local A. M. A. chairmen, and arrangements made for registration booth and insertion of announcements in the Bulletin.

The New England Women's Club room was secured for meeting place of the sessions Friday evening and Saturday.

Automobile hospitality was extended to those seeking accommodations, and a general information committee has been at the registration booth every hour of the five days. An attempt was made to register women physicians and their local addresses—to help in locating them. Tickets have been on sale for the annual dinner booked for 6:30 at Hotel Vendome, Saturday, June 11th.

One thing remains, however, an untarnished memory—the perfect weather we managed to secure for you. Our only regret is that you did not claim us for more personal service.

EDITH HALE SWIFT.

REPORT OF DELEGATES TO MEETING OF GENERAL FEDERATION OF WOMEN'S CLUBS AT DES MOINES, 1920

From the time the committee of the Iowa State Federation began to plan for the Biennial, every club woman of Iowa felt that she was getting ready to entertain friends and distinguished guests. The work of the committee was so efficient that several thousand hostesses made several thousand guests comfortable and happy. Automobile service by Des Moines women was generous and a joy to both drivers and guests.

The Committee on Public Health held its conference in the Women's and Children's Building at the State Fair grounds. This was largely attended, and the time given for discussion was fully taken. The necessity for birth control was recommended as a suitable subject for study by the Federated Clubs. Among the physicians who spoke on the program were Dr. Rabinoff of the U. S. P. H. S.; Dr. Meanes and Dr. Bird Baldwin of Iowa City.

One of the most delightful evenings was that of State Presidents' night. One could only be proud of such womanhood and of the States which they represented as they described the aims of the women of their State and what they had accomplished.

The theme of all the programs was to give gigantic support to everything that is for the betterment of humanity. Thrift, Americanization and Community Service were the three great divisions of a program that emphasized music, art, education, social service, public health, etc.

Mrs. Thos. Winters, of Minneapolis, was elected President for the coming two years.

It was decided to erect a General Federation Building in Washington as a permanent home. The Federation Magazine was suspended for financial reasons, and a small bulletin of activities is sent out instead. This may be had for 50 cents per year.

Among the forty-two resolutions that were passed commending many things were the Smith-Towner bill for a Department of Education, the Foss bill for more funds for home economics training and the Sheppard-Towner maternity bill. Two things of special interest to our Association may be mentioned: Our resolution commending the Anna Shaw Memorial was not passed by the Resolutions Committee; and that Affiliated National Organizations, of which ours is one, do not have a vote. We therefore recommended that a committee be appointed to secure information regarding steps to be taken to change the laws that affiliated clubs may have a vote, and to authorize them to take such action as is necessary to secure a vote for the Medical Women's National Association.

N. S. NOBLE,
GRACE DONE,
MAE HABENICHT,
Delegates.

Digitized by Google

REPORT OF DELEGATE

To Ceremony of Presenting of Statues of Pioneer Suffragists to the Capitol

To the Medical Women's National Association:

It was a great honor, and one much appreciated by me, to represent the M. W. N. A. at the unveiling of the statue of the three pioneer women suffragists—Elizabeth Cady Stanton, Lucretia Mott and Susan B. Anthony—in the Capitol at Washington.

It was a scene never to be forgotten by those privileged to attend.

Each one of the nearly one hundred societies participating had a representative, a banner bearer and a flower bearer.

The representatives, hatless, wore graceful capes of pastel coloring, while the banner and flower bearers were beautiful young girls clad in Grecian costumes.

The societies represented included all professions and occupations, as well as social organizations, etc.

There were enough banners to encircle the rotunda of the Capitol, and the color scheme was beautiful beyond description.

A trained chorus of women, accompanied by a fine orchestra, sang Kipling's "Recessional." The last stanza was sung as a solo by a woman whose voice seemed to come from the dome of the Capitol, and as the last note sounded, the coverings of the statue fell away and the chorus swung triumphantly into the "Hallelujah" chorus.

The flowers were large bunches of spring flowers, mostly daffodils and narcissus, and, with wreaths of laurel, covered the base of the statue.

Miss Jane Addams presided, and the statue was accepted in a speech by Speaker Gillette of the House of Representatives.

The rotunda of the Capitol was crowded to capacity, while thousands of men and women were turned away who desired admission.

It was a magnificent occasion. The banner, with the name of the Medical Women's National Association upon it, became the property of the M. W. N. A., and is now in possession of its officers.

SARA H. LOCKREY.

REPORT PRESENTED BY

Dr. Anna E. Brown, Representing a Committee on Health Education, which, however, was never fully organized

Boston, June 10, 1921.

Whereas, A Committee on Health Education was appointed by the Medical Women's National Association prior to the organization of The Women's Foundation for Health; and

Whereas, During the period of the Foundation's existence a group of physicians has been engaged in testing types and methods of health education for women and girls; and

Whereas, This group has succeeded in developing and demonstrating a plan which is consistent with the ideals and standards of medical practice and supplements the practical treatment of illness by the cultivation of personal responsibility for health, and which furnishes the basis for promotion of positive health education by physicians in accordance with the ethical and economic requirements of the medical profession,

Resolved, That the Medical Women's National Association, as one of the fifteen national organizations co-operating in The Women's Foundation for Health, recommends the following practical steps toward effective co-operation:

1. The adoption by individual medical women of positive health standards for themselves and the application of these standards in the practice of health habits, including those relating to dress and shoes.

2. The use of the Individual Health Examination Blank in office practice as a basis for the health examination which awakens the sense of individual responsibility for health and gives the initial impetus towards personal health-building.

3. The use of the educational pamphlets of the Foundation's Official Series as a basis for the dissemination of knowledge concerning health-building habits.

4. The maintaining of close co-operative relations with local women's clubs and other organizations belonging to The Women's Foundation for Health.

5. Since the foregoing types of co-operation must depend for their ultimate success upon the willing aid and technical guidance of physicians who are trained in the postive health point of view, and since the most effective leadership will naturally

Digitized by Google

come from women physicians who are not only well equipped along the lines of curative, corrective, remedial and preventive technique, but are also most conversant with positive health ideals and the constructive technique, it is furthermore recommended that the incorporation of health education in the curricula of progressive medical schools where women are trained be brought about as soon as possible.

6. It is further recommended that medical women of this Association who have charge of physical education departments in women's colleges shall bring to bear upon their work the new conception of health as positive, normal and realizable; and shall introduce, in the order of their practical adaptability and as rapidly as possible, the various and equally essential features of constructive health education.

SPECIAL ARTICLE

CONVENTIONAL WAYS OF CONVENTIONS

A Suggestion for Future Meetings of the Medical Women's National Association

THE editors of the country are said to begin getting ready for their special Christmas numbers in June or July next preceding, and the time to think over coming conventions is at the close of the one that has just been held. Sometimes the arrangements have been so perfect that it is a good thing to make a note of them for the future, and sometimes the omissions have suggested arrangements which should be made.

A local committee cannot anticipate everything that might be desired, and the members of a visiting organization feel a certain hesitation in making suggestions. Often delegates are themselves to blame for inconveniences of which they complain, and certainly it is true that there is a lack of responsibility on the part of delegates who find themselves unable to attend at the last moment, and fail to notify the local committee in time to cancel their reservation.

The delegate should take a good many things into consideration, and if members of the association would do this it would add greatly to their comfort and to the peace of mind of the Committee on Arrangements. I have used the term "delegate" in its conventional rather than in a strictly accurate sense, simply meaning those in attendance on the sessions to be held by the Medical Women's National Association. If every physician planning to attend could let certain facts be known, it would be a good thing for all concerned, and they can be set down quite simply in some such order as this:

1. I expect to arrive.....(giving exact date), and to remain for ..... days.
2. I desire room and bath at a rate of not more than $..... per day.
3. I am willing to share my room with one or two other women, providing we have separate beds, or I must have a single room, or Dr. Blank will accompany me, and we desire a reservation together. It should be made clear what limitations are set on fellow roomers.
4. In case I am not able to attend I will either dispose of my reservation, or be responsible for the expense entailed in making such reservation.
5. I am willing (or I am not willing) to go to a private house.
6. In case there are several stations, I wish to know which is nearest the place where I have rooms assigned me.

With this amount of information to go on, the local committee can go ahead feeling a certain safety in completing its arrangements and assuming obligations, and thus informed it should attempt, in so far as possible, to carry out the wishes of the expected visitors.

Probably the vast majority would greatly prefer even the most modest hotel to the average private house, which is devoid of elevators, telephone service and adequate

Digitized by Google

toilet facilities. Housekeepers who wish to augment their income by letting rooms to convention visitors should expect to make some provisions for their accommodation. There should be some one who could carry luggage, move trunks and take them upstairs, attend to tickets and checking, and be available for any similar service that may be required.

It goes without saying that there should be plenty of hot and cold water, towels, soap, etc., and it should be possible to get proper drinking water, but these small items are not always remembered, and they add much to the comfort of the guest.

In the place selected for the headquarters there should be one room set apart for all the members, with a bulletin board for notices, a receptacle for mail and a registration book showing where all delegates are to be found. There should be an ample supply of railroad folders, and a poster giving the time of the arrival and departure of all the principal trains would be a great accommodation.

In addition to this there should be at least one member of the local committee on duty in the headquarters to give delegates information and directions and such assistance as may be required for any reasonable service. There should be writing tables with pen, ink, blotters, etc., and a rest room, even if it is no more than an easy chair, and a couch behind a screen is very desirable.

If screens can be furnished, or wall space where we can make a display of the pictures which tell the story of the American Women's Hospitals in the headquarters, we believe this will prove a very attractive feature; and if the other committees of the National Association have material which can be advantageously displayed—printed reports or bulletins—provision should be made for them.

In addition to the bulletin board already mentioned and the registration book, a bulletin showing the arrivals of delegates would enable their friends to locate them.

If we want to build up our organization we must get over a certain sentimental objection to seeing our names in print. Either the local committee should appoint a good, live press woman, who would undertake to see all the newspapers and explain work and importance of our organization, and if possible get certain reporters assigned to "cover" our meetings, or else the National Association should send on an advance agent to look after these details. There are hundreds of notable women among our members, women who have done remarkable things in a remarkable manner; and if we let the public know more about the personnel of the Medical Women's National Association, other women physicians will begin to feel that it is an honor to be identified with us and a misfortune to remain outside our ranks. Not only this. Reading the list of our "Assembly of Notables," I am sure many brilliant young women who are hesitating in their choice of a profession would be drawn to one which can show so glorious a record of work done, pain assuaged, and the conditions of communities and whole people infinitely improved. If we want the fine young college woman, we must make a definite appeal to her; and ours is a story which will bear telling and retelling to the world.

PART-TIME SCHOOLS FOR WORKING CHILDREN

One of the most progressive of the recent movements in compulsory education has been the passage by many States of continuation school laws, which afford a child who has left school for employment opportunity for further education by providing part-time compulsory schooling for a specified number of hours each week. Some of these laws apply also to unemployed children or to children who are no longer subject to day-school attendance requirements. A brief analysis of the continuation and evening school laws of each State, as well as those prescribing day-school attendance, is shown in a chart recently issued by the U. S. Department of Labor through the Children's Bureau, entitled "State Compulsory School Attendance Standards Affecting the Employment of Minors, January 1, 1921."

This chart shows that twenty-two States now have compulsory provisions for continuation school attendance. In three of these States, however, the establishment of such schools is not compulsory, and in one the school authorities are merely empowered, not compelled, to establish part-time schools and to require attendance. The age limit to which the compulsory attendance provisions apply varies, ten States requiring attendance up to 18 years of age, one State up to 17, and eleven States up to 16. The amount of attendance is from 4 to 8 hours weekly; the laws of each State either specify or imply that this period shall be counted as part of the child's legal working hours.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to
MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

A FINE INSTANCE OF NOBLESSE OBLIGE

As our readers will observe, this issue is largely devoted to the official report of the proceedings of the Medical Women's National Association, held in Boston, June 10-11th, so that it may properly be called a Convention Number. As the Journal is the official organ of the M. W. N. A., it is both a duty and a pleasure to give so much space to its proceedings. In the June number we gave those reports which were ready and a short résumé.

The only regrettable feature about the meeting was the failure of so many women physicians to notify the Chairman of the Committee on Arrangements of their inability to be present after rooms had been secured for them. This was not only extremely embarrassing to the Chairman of the Entertainment Committee, but also to the Executive Board, who had authorized the local committee to make such arrangements. The expense incurred, and for which the Association was obligated, was met by a self-imposed tax on the medical women who were present; but it is hoped that those women who were not able to be present, and who perhaps did not fully realize their moral obligation, will come forward and pay for the rooms which they had reserved, and for which they had put themselves on record, thus mitigating the debt the other women so generously assumed.

WHAT LEGISLATORS ARE DOING FOR MOTHERS AND BABIES

The Sheppard-Towner Bill absorbed so much earnest attention during the last Congress that most people did not observe what was going on in State Legislatures on the question of maternal and infant welfare, and will be surprised to learn that twenty-two bills relating to this question have been introduced in fourteen different States. Four States have bills which definitely provide for acceptance of a Federal plan of co-operation as provided by the Sheppard-Towner Bill. New Mexico H.236, Illinois S.134, New Hampshire S.6, and South Dakota S.294, which has become a law, are all so drawn as to meet the requirements of the Federal Bill. The proper agency has been made responsible for the administration of the Act. The offering of instruction in maternity care, the giving of actual nursing and medical attention, and also thorough study and investigation of conditions making necessary some such form of protection are provided for. The impetus which has been given to such legislation has quite naturally been lessened by the fate of the Federal measure.

In addition to the four bills just mentioned, the following measures, though not providing for acceptance of Federal co-operation, seek very definitely to improve the conditions surrounding maternity. Illinois S.223 provides for "instruction of the people of the State in the hygiene of maternity, infancy and childhood through prenatal clinics, public health service, consultation centres, and other suitable methods." This bill was introduced more recently than Senate 134, possibly in order to insure some form of State legislation in case a plan of Federal co-operation could not be made effective. Illinois S.10 authorizes "a tax for the medical care, nursing, medicine and attendance of women while child-bearing, and for children under one year of age." No action has as yet been taken upon any of the Illinois measures. Rhode Island H.527 provides protection for mothers and children during the maternity period. Massachusetts H.1835 authorizes the Department of Public Health to "provide advice, instruction and visiting nursing care to women during their pregnancy and confinement . . . and after childbirth regardless of their financial condition." In case of need, other assistance than this is provided by special recommendation. This bill was included in a most enlightening report rendered by a special commission appointed to investigate maternity benefits.

Digitized by Google

WHEN LILLE WAS TAKEN.*

By CLELIA DUEL MOSHER, M.D.,
Stanford University, California

FRIDAY, October eighteenth, 1918. The breakfast tray had just arrived! The doctor looked wearily at the brown liquid called coffee, realized that the milk could not be used and that the butter was strong enough to eliminate itself from the menu, and rejoiced that this was not an unlucky day and that as usual the war bread was good even if the confiture was uneatable. The rustle of the morning paper being pushed under the door made her hastily set down the coffee. The arrival of the "Paris Herald" was the most exciting and eagerly awaited event of those most eventful days! Forgetting breakfast and everything else, she unfolded the paper and read those modest headlines which so altered the war map! "OSTEND, LILLE, AND DOUAI ARE PRIZES IN THE GREAT DAY OF ALLIED VICTORY." Nor did she lay down that paper until she had read every word in those four small pages to be sure that no damning clause slipped in at the end of some paragraph should dim the wonder of that great success.

Pouring out the olive oil in lieu of butter on her war bread and spreading a more liberal coating of sugar in place of the jam, she drank the cold cafe noir which tasted like nectar as the words sang themselves into her consciousness, "Lille is taken! Lille is taken!" Only those who have lived through the long dark days with the patient, enduring French people can ever realize what those words really meant!

On the way to the office she paused in the Place de la Concorde before the statue of Lille, which, rivalling her sister city, Strassburg, in the number of her flags, was covered with fresh flowers. The tears filled her eyes as she saw the two tiny bunches of violets tied to the knob of the door in the base of the great statue. How much more this gift meant than the palms and wreaths and flags bearing the names of presidents, ambassadors and others of the great and powerful. With a heart full of gratitude she turned and took her way along the rue de Rivoli, certainly an inch taller, head up, and the joy and triumph of the allied success shining in her face. Going along that great thoroughfare, walking on air, her soul was singing with the joy of victory. Not a person she met that morning failed to smile and greet her as she passed, from the humble street sweepers, the dignified gendarmes, the haughty and self-sufficient officers of the allied armies, to the black garbed women in whose weary faces the smile came more easily this wonderful morning. Vaguely as she sat down at her desk to the routine work of the day she wondered why every one had smiled and spoken to her! Did they see in her face the unspoken words her soul sang over and over, "Lille is taken, Lille is taken!"

Before the day was over, she began to see and to realize in some small measure the individual cost of that great victory! In the office was a charming little French stenographer with soft shining black eyes, who had been working there even longer than she. Many were the lengthy reports that the girl had copied, and often she had translated the doctor's halting French into the courteous though very formal epistles demanded by French convention. It was difficult to realize that this charming young girl was married; she seemed too young, too near childhood. To-day there was an anxious, worried look in the soft black eyes, and the smile was faint as she responded to the doctor's joyous greeting, "Lille is taken, and the end will soon come!" Then the girl told her story.

"I am very anxious, Madame! My husband has just gone back after his first permission; his daily letter which arrived yesterday said he would go forward in the advance, and this morning . . . there is, there is . . . . no letter. It is the first time. His parents are very worried also, Madame!

"Oh yes, Madame, I have been married one year"; and she added proudly, "We were promised before the war. He has been in the war from the beginning. It is the first day his letter has not come. I am very anxious, Madame!"

So the doctor stood there and tried to comfort her with the usual platitudes of no news being good news; some military necessity for delaying the mails; the letter might have miscarried. But the doctor's joy in that great victory was dimmed as she stood there looking down at this young wife with the trouble in her dark eyes, and thought of those two old people anxiously waiting for news of their only son.

As that long line of battle swept forward, leaving Ostend, Lille and Douai in its wake, it left more—the flower of the youth of the allied nations. And out there in the morning light that brave young Frenchman

* Copyright, 1921, by C. D. Mosher, M.D.

Digitized by Google

lay dead where an enemy bullet had silenced for ever his faithful and loving heart. Day followed day, and the silence was unbroken until the French official statement put an end even to the faint hope which had grown less and less as time passed.

It did not comfort the breaking heart of that girl widow, then, that Time, the great healer of pain, would enable her to realize she had given her all for a great and glorious cause—the freedom of France and the world! Could she be expected to remember that it is a glorious way to die, in the splendor of one's youth, giving one's life for an ideal! Nor would it have helped her to think what a wonderful heritage the father had left to his unborn son! She saw only the spread of the long years of unending loneliness; how could she see beyond the present—to keep the home and to provide the food and shelter! To comfort that old father and mother whose only son lay out there under the sky, dead, that France might live!

When the days passed one after another in the midst of all of the riotous joy of victory, that sad girl face, framed by the widow's veil, was a constant reminder of the cost of war, even victorious war.

Nor was this girl widow the only reminder of what it costs to fight! However even a great success is heart breaking to see. The day that the taking of Lille was announced was not over before the prefecture was besieged by a waiting crowd of rible thing, and the misery which follows black garbed women! There were mothers with babies in their arms, or children clinging to their skirts; there were old women, wrinkled and worn; here and there an old man, perhaps attended by a half-grown girl. In spite of the signs, "Lille est defendu," "Lille is forbidden," those lines of patient waiting French peasants stood there hour after hour awaiting their turn to be told that even in their cases there was no exception. "Why could they not go back to their ruined homes, their devastated fields, and bury their dead?" It was a silent throng, never growing less; for, as fast as the gendarmes ushered in the front row, more had joined the end of those long lines of waiting people until they extended around the corner, weary, patient, enduring—Lille, their Lille was taken and they were there for permission to go home.

As the doctor passed that orderly waiting crowd day after day, she was reminded of a marching procession she had seen near Meaux. It was just after the victory at Chateau Thierry. The refugees had scarcely settled down in their temporary shelters to wait patiently when word came that some of the grain had not been destroyed but only tramped, and perhaps about a fourth might still be saved.

She stood by the roadside leaning on her wheel when that procession passed on its way home. There were the carts, often half filled with a little hay or straw; the odds and ends of cooking utensils hung about, and it was a motley and inadequate supply. The wrinkled old grandmother, weary but indomitable, sat on the front seat aslep. A good animal, here and there, with the clustering flies clinging to its sleek brown sides, was led by the worn out man who swung by with the air of being on the way. In one cart a woman with a new born baby half reclined on the straw; the little boys with switches snapped off the heads of the flowers in true boy fashion, with bare legs running and jumping about. The end of the procession was brought up by a weather beaten worn man and his wife walking behind him, driving their cart while he led a great animal. As the silent procession of unconquered, indomitable French peasants passed on their way with their faces turned toward what had been home—the doctor broke the silence, and in a choked voice, realizing what might lay before them, called to that last woman, "Bon chance, Madame!" "Good luck." And that daughter of France did not fail to respond, "Merci, Madame."

After that great victory which gave Lille back to France, life went on in Paris much the same, except that this great success but increased our longing. For like the thirst for knowledge, this great victory but whetted our appetite for more.

While in the Place de la Concorde the fountains were playing for the first time, the arc lights burned at night to enable the soldiers to arrange the enemy guns of every sort and description, which streamed out of that great square and along the two sides of broad Champs Elyssee as far as the Rond Point. The Terrasse of the Tuilleries was adorned with rows of captured aeroplanes, great flag poles surmounted by the Calois—the cock of France, with tricolors streaming, were viewed by increasing crowds which daily grew greater looking at these tangible evidences of success. A great wave of joy grew greater and greater until, on Sunday, it burst forth in a pæon of victory and the fourth French

Digitized by Google

loan was successfully launched. Not even the weeping skies, while nature mingled her tears with those of the childless, the widow, and the fatherless could stay that mighty crescendo of joy which went echoing around the world, growing ever greater until the heel of the invader was lifted from the soil of France, and it all began the day that Lille was taken.

KEEPING MOTHERS AND CHILDREN TOGETHER

It is against sound public economy to allow poverty alone to cause the separation of a child from the care of a good mother. This is the principle back of the mothers' pension system, the administration of which is discussed in a report, entitled "The Administration of the Aid-to-Mothers Law in Illinois," recently issued by the U. S. Department of Labor through the Children's Bureau.

The Illinois statute of 1911 was the first mothers' pension law in the country. At At present forty States in the Union have such a law.

The administration of the Illinois law of 1911 was placed with the judges of the juvenile courts throughout the State, and very wide discretion was vested in the court. In 1913 the law was radically altered and the authority of the courts was definitely limited. Minor changes have since been made.

During the first year following the enactment of the pension law in Illinois only sixteen counties outside Cook County made any use of it, while by the end of 1920 pensions were being granted in all but 12 of the 102 counties of the State. At the close of the first year of the administration of the original law, there were 327 families on the pension roll of the juvenile court of Cook County, representing a monthly expenditure of almost $7,000, while in November, 1919, there were 851 families on the roll with a monthly expenditure more than four times as great as in 1912.

The report gives a detailed account of the administration of the law in Cook County, which has set an admirable standard both as to adequacy of pensions and efficiency of administration. The court follows methods standardized by good private relief agencies in the investigation that precedes the pension grant, and also in the supervision of families after they are placed on the pension roll. Aid is administered in such a way as to encourage the self-respect of the beneficiary, and a relationship of co-operation is established between the pensioned mother and the supervising probation officer.

However, methods of administration are diverse throughout the State, and facts presented in the report point to the conclusion that the principle of local responsibility for administration should be replaced by some measure of State control or standardization. The importance of perfecting the mothers' pension law is strongly emphasized because, the report points out, this system if properly organized and safeguarded may contain the nucleus of a new form of State aid, free from the pauperizing effect of the old public charities, and capable of considerable extension, along with actual economy of expenditure.

RELIABLE PREPARATIONS AGAIN ON THE MARKET

Schering & Glatz, Inc., beg to announce that the following specialties, which have been off the market for several years, are again available:

Brovalol Pearls.
Chimneys for Formalin Lamps.
Empyroform.
Formalin Disinfecting Lamps.
Levulose (Diabetin).
Lithium Tonol (Glycerophosphate of Lithium).
Liquid Tar Soap.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 8

August, 1921

$3 per year in advance
Single Copies, 25 cents

RACIAL AND SEX INERTIA*

By CHARLOTTE ABBEY
Philadelphia, Pa.

THOSE of you who have read the book entitled "The Education of Henry Adams," know how unceasingly he strove to realize Truth in regard to Life. As an historian he felt that all history and education is incomplete, and must be a failure until the evolutionary force of life is realized in its true sequence. He felt that the force permeating the magnet, and which forms a toy for children, as well as an engine for destruction, was as great a discovery as the force of radium; neither force being comprehended in its origin, only known by its effects—a physical manifestation of something that belongs to life, which man has learned to harness, while still ignorant of its nature.

Then he compared the Force emanating from the dynamo with the Force emanating from the statue of the Virgin at Chartres. Both were the shells of an unseen force that could be felt—one the expression of mere unconscious brute force; the other the expression of the same force more highly developed—that had caused the sculptor to breathe into his creation a breath of life that embodied ideals of beauty, so far as he could demonstrate them through physical form.

Adams saw that invisibly within that sculptored form was contained that which brought to the heart of man thoughts of love and infinite compassion, quickening aspiration towards heaven; whereas the purely physical dynamo spoke only to his brute tendencies as a means whereby he could organize physical power.

Through the physical senses of man the psychic powers are felt stimulating the nerve centres to activity and producing results according to the evolutionary status of the individual for good or for evil.

Every civilization has had a number of people who have perceived the necessity of a life of righteousness as distinguished from a life of indulgence in brute tendencies. These have illustrated their cries of "Repent" by enumerating the effects produced through disobedience to the Law of Nature and God.

If the human race had been obedient to the commandments given by Moses, all people would have come up to the level of Jesus, and would have been ready to accept and realize the doctrine of Love, which is the teaching of the New Testament.

When the Messianic message of Jesus became incorporated with the Pagan ritual of Rome, the Messianic teaching was lost sight of buried under Pagan ritual; but Pagan symbols all now seem to be caskets which, when opened, reveal in great part natural truths regarding life, handed down in symbolic form from former civilizations, even as a chemical formula is the materialized sign of its ingredients, useless for good and productive of evil if not understood.

The Soul, or Thinker, dwelling in human form, can, through co-operation with the Law of Nature and God, transmute the physical, mental and moral power of man into a perfect unity or trinity, thus building the Temple of God in the human soul—a temple not made with hands eternal in the heavens—a temple that only requires that the bodily functions of life be held sacred to the purposes for which they were created.

As this simple teaching of life is perceived, it will strike a blow at a system of psychological teaching which, under the term "occultism," is a prolific source of nervous disease and insanity. Those who take up the study of how to produce certain psychological effects by personal mental control of the nerve plexuses can achieve their object and come en rapport with the psychic world; but there is probably not one in a thousand who, if these occult practices are continued, does not become the victim of nervous strain.

This phase of abnormal development is only found among those who have had the educational advantages that enable them to understand physiological and psycho-

*Read before the Alumnæ of the Women's Medical College, June 16, 1921.

Digitized by Google

logical phenomena. They are the victims of racial inertia because they do not perceive that life's normal wonders can only be sensed, and intelligently understood, through the sacrifice of selfish ambition in the interest of others.

When this thought is realized, then natural occultism takes place, for the Soul—the Thinker—comes into communion with the unseen—not consciously at first, but gradually. Even as an infant grows into the more perfect consciousness of its surroundings and develops greater faith and hope in its possibilities, so the Soul that lives in accordance with law feels itself under a protective power for good.

So-called occult phenomena is not sought by the soul, who is too busy trying to be a more worthy instrument to receive Divine wisdom in order to help on racial progress and prevent the race sinking deeper into the hell of inertia.

Racial inertia does not mean inaction, but action satisfied with self-indulgence in the sensual instincts belonging to the past, but which needs to be uplifted to higher levels through habits of self-control.

Those who take up revolutionary ideals with the sincere wish to make life better worth living, are oftener than not defeated in their aims because personal ambition crops up and defeats the good which the leader had in mind.

Until we practically apply the teaching, "He who saveth his life shall lose it, and he who loseth his life for my sake shall find it," any program of reform will prove a failure, for people remain the slaves of personal ambition rather than the disinterested workers who gladly say: "Let who can get first on the road to true human progress."

The teaching that is being advocated on the subject of birth control is teaching that violates the law of Nature and God.

Instead of teaching "the wisdom of the law of life, given for the guidance of human desires and declared by Jesus to be the law of life eternal," the power of self-control is lost sight of and perversion of natural function taught in its place, and this under the plea that it is only justice to the poor and ignorant to teach them the means, already practiced by the wealthy, by which child birth can be prevented at the time of conception.

Advocates of the prostitution of natural instinct give also as a reason for their teaching that when only the welcomed child is born there will be a higher type of humanity born into the world. This is absolutely true if parents are always natural in their habits, but this important fact in evolution does not work unless the parents are always normal in their habits. The children born of parents addicted to abnormal ways, even when welcomed, will have stronger animal tendencies than normally human ones.

Granted that economic conditions and the fact that many men and women are not in sufficiently healthy state to warrant parentage, yet these are adverse conditions that can be removed by man's moral intelligence, and which, if allowed to remain, intensify the evil that is the result of perverted action.

It is self evident that when the moral standard is lowered, which is the banner of heaven for the human race, degeneracy of human intelligence takes place, undermining the mental possibilities of the millions of children, who could under more enlightened vision be guided to habits of self-control through an education that demonstrates the evolutionary value of the law of thought for others, uplifting human ideals of bodily functions instead of destroying them.

Those of us who have thought deeply enough to understand the law of cause and effect must cry aloud against the thought that is making us even as Sodom and Gomorrah—pandering to racial and sex inertia, which is the result of a people lulled to the satisfaction of indulgence in their animal instincts instead of habits of self-control necessary for evolutionary progress.

This inertia is the result of traditional belief that has robbed the race of the sense of human responsibility by giving the thought of a Deity who made mankind weak, instead of a Deity who made life good, for man himself to make better through use of the mental and God-like powers with which he is endowed and a law by which to regulate all desires. Women, being the mothers of men, upon women is placed the responsibility of the uplift or downfall of a nation.

Once again in the history of the world woman has risen as a self-conscious power. Are we on the brink of a second version of the Garden of Eden?

What are women intending to do with their power? Thousands of women who have the vote are just as material in their conceptions of life as man—oftentimes more so.

Digitized by Google

I believe that many men did not want women to have the vote for fear that women might lose the maternal ideals belonging to family life.

Such fear is the result of a religion that has failed to show both men and women the relation of the divine law to physical, mental and moral uplift.

And now what have we?

Women teaching perversion of the natural functions of sex—persisting in calling the sex desire common to all living organizations "love" instead of seeing in sex the means whereby, under habits of self-control, affection infolds into love through the maternal and paternal intuition present in all normal men and women.

There is a strong tendency for women to throw off religious thought. Doing this, they throw off that which is absolutely necessary for sex and racial perfection. Religion, as I have said, does not consist in ritualistic practices. It is the unified activity of body, mind and soul brought about by the will of the Thinker co-operating with the Divine law of thought for others, which law was given for the control of desires, animal and human.

Control of desire means in its first universal analysis division of thought into right and wrong. This was recognized by primitive man by the command, "Thou shalt not."

The second analysis of desire came when man evolved sufficiently to see that all commandments are summed up in the law of "thought for others," and he was forced to divide, through application of this law, that which is right into that which ultimately promotes pleasure or pain, health or disease. This was the ushering in of the self-conscious evolution of good.

For instance, the exercise of bodily functions are right, but we find that strict limitations have to be placed upon the inherent instinctive feelings that we naturally share with the animals, for as the mind of man developed, he became more and more conscious of his creative power, and turned the creative force into defying the law, "Thou shalt not," if it was not in accordance with his thought of personal pleasure.

The creative faculty of man had therefore to be brought into contact with personal suffering in order for the Soul or Thinker to bring about its own self-regulation by recognizing its mistakes and undoing them.

We are only just beginning to perceive intelligently the relation which co-operation with the law of Nature and God bears to the soul—viz., freedom from the slavery of ideals belonging to past stages of evolution.

Thought for others manifests itself in many phases from unreasoning sentimentalism—that which palliates and increases an evil instead of taking measures to uproot it. This is the result of ignorance regarding the relation of the mental powers of man to human responsibility, and the wisdom born of an unselfish life, that uses all the powers of the mind—reason, affection, desire, will, energy, memory and imagination—in relation to the law of God.

If one principle of mind can take precedence of another, it is the power of imagination. It forms the leading, dynamic force in man's mind for good or for evil.

The blind search for truth, which causes us to look for causes and prevention of human disease through the vivisection and inoculation of dumb animals, with the products of disease from which the animals, unless inoculated by human hands, do not suffer, and the preparation of organo-therapeutic remedies derived from the glandular organs of creatures innocent of our perverted instincts. These forms of laboratory work—which must be conceded are not, as a rule, practiced through the wish to be cruel, but with the wish to find remedies for the diseases from which the human race suffers and which cost millions of dollars to keep up—will give way to the clear, rational teachings, that man, the soul, the thinker, dwelling in human form, can, through co-operation with the law of Nature and God, transmute the physical, mental and moral powers of man into a perfect unity, thus building up the true temple of God in the human soul—a temple not made with hands, eternal in the heavens; a temple that only requires that the bodily functions of life be held sacred to the purposes for which they were created.

Is there any one here who can deny the truth of this statement?

Study, meditation, prayer and the performance of daily duties are all necessary in human uplift. We find that as self-interest is cast away, true occultism is unconsciously produced.

Unconsciously because it is the force given from the unseen when the law of normal evolutionary life is obeyed, for

Digitized by Google

then the imagination of man is cleansed and God in Nature is seen.

When we begin to train children in home and school to live kind and useful lives, we will be teaching them habits of self-control through co-operation with Divine law of thought for others, and through this training will come greater perception of truth, for thoughts of love and justice will be awakened, and this without reference to denominational religion.

What the polar star in the physical heavens is to the mariner, so the law of love is to the human soul—the star of our spiritual heaven.

When we are firmly fixed in our determination to live in order to help others, then comes our entrance into the true hall of learning. We have not been guided there by some external force that has been paid to procure our entrance. No one can purchase entrance financially. We have to be led on by our own inherent spiritual vitality that has been redeemed from the inertia belonging to past life and awakened to a practical knowledge of a larger field of life than the merely physical, and yet recognizes that it is only through concentrating thought on bringing about the physical perfection of this earth that entrance into the hall of heavenly learning is made.

Progressive medical thought is seeking to establish schools of "preventive medicine."

To me the term "preventive medicine" is a misnomer. It should be entitled a school for "constructive hygiene."

Medicines that act as constructive agents or foods in the bodily tissues will always be needed more or less on this physical earth, but medicines for the purpose of palliating the results of abnormal practices—that is, practices not in accordance with the promotion of healthy vigor—will not be needed.

Is it not clearly writ upon past history
That all disease and sorrow is result of man
Using the powers of mind—inherited by natural law—
Against the will of heaven?
Man is the angel who was made a living soul to lift
Nature to higher levels.
Seeing these things, can we not see
That man himself must be his own Redeemer
By conscious union of the powers of earth and heaven in form?
There is no Satan worse than Man's own self that clings to lustful passion.
There is no Jesus greater than the Soul, who consecrates desire
Unto attainment of the highest human good.
Hear Daniel speak (Dan. 11th chapter, 31st verse):
"When the sanctuary of strength is polluted
And the daily sacrifice taken away—
Then shall they place the abomination that maketh desolate."
Is not the sanctuary of strength the human form?
Is not the daily sacrifice the sacrifice of self's desires?
To will of God—the Power Divine—the Good?
Are not life's Sabbaths broken when man lets mind
Revel in sensuous action that pollutes
The well-springs of life's fountain?
Giving no rest to functions that belong
To the upbuilding of God life through form.
After the prophets and great teachers of the law
Came Jesus, who through his life on earth
Showed the reality of God in man—
The law of God—the good in life—
Slain by the evil—crucified again and yet again—
Yet ever on the ascent.
For good incarnate never can be slain—
Only its earthly form.
And this is symbolized as "Lamb of God,"
The form of life slain from foundation of the world.
So Jesus came voicing the truths of nature
To the ignorant in Parables,
So they could understand that nature and God are one—
"And I am one with God," he said,
"And you are one with me."
Oh, gracious words! so long misunderstood,
Oh, life! that stood for truth!
God manifest in man—
And for the truth was crucified by those
Who made the lust of earthly power
More precious than God's law.
Oh, blest Redeemer! Who didst teach—man is his own Redeemer,
And can raise his earth life by his will unto the gates of heaven;
When will is made co-operate with will of His Creator;
Thus keeping clean the well-springs that belong to body form.
Into these pure wells man's mind has poured
The product of ill-regulated thought that choked the well-springs,
Smeared their halls with filth—
And then man cries unto the Lord, asking relief from pain,
And takes dumb animals, probing within their vitals
For truths of life—and this in name of Science;
The animals who know not what it is to sin
Against the word of God;
The animals whose blood, curdled by fear of his dissector man,
Can never show the vital human truth encircling human life.
Oh, blinded human souls—blind through persistent slavedom to desires,
That sink "thy will" to level with the filth that chokes thy well-springs.
Desire is good—'tis beautiful—'tis that which fires imagination;
It belongs to Heavenly powers—
But 'tis Desire that, uncontrolled, drags down
Man's God-like powers, through ministering to pride and lust and jealous thought;
Conquering Desire that's harmful, through misuse,
We raise it to its heavenly privilege through love.

Digitized by Google

Desire cannot be killed—
But through its limitations the well-springs of
past lives are cleansed,
So that the life-springs may have fullest power,
And upward bring the Forces of the Past,
That were created good,
To life's best levels.

EPIDEMIC ENCEPHALITIS*

By IRVING H. PARDEE, M.D.,
New York
Associate Physician to the Neurological Institute.

NO disease has so taken the medical profession by surprise as epidemic encephalitis, for it arrived here in the wake of the influenza epidemic almost unheralded.

Like most of the epidemics of the past decade, it has travelled from East to West, originating somewhere in that center of diease, Southeastern Europe, whence came poliomyelitis, influenza, meningitis, and lastly encephalitis. The accepted terminology for the diease has become epidemic encephalitis, because the term encephalitis lethargica is incorrect and misleading. For, as it has been aptly said, it is not the encephalitis which is lethargic, but the patient; and when lethargy is present in only a small proportion of the cases, is it not a mistake to consider that the disease and lethargy are inseparable? A word of caution against the use of the term "sleeping sickness"; the tsetse fly in Africa has usurped that name for its own and trypanosomiasis is clinicly a different disease from encephalitis.

The first report on the disease was by von Economo from Austria in 1917. He gave an excellent description of the clinical aspects and pathology of the disease and was the first to name it encephalitis lethargica. After that reports filtered in from Germany, later from France, and soon afterward a wealth of material appeared fom England. In the fall and winter of 1918-19 the disease made its appearance in the United States in epidemic form, lasting until spring. It soon now spread to Latin America and the Orient, therefore becoming world-wide in its distribution.

Let me impress upon you that this is not a new disease. A study of the literature shows that an epidemic "sleeping sickness" was reported in 1712, again in 1745 and in 1800, and in 1890 the predilection of the influenza toxin for nervous tissue was noted by Leichtenstein in a splendid monograph and an encephalitis was described by him coincident with the great influenza epidemic of that year. Since then there have been described various encephalitic syndromes whose etiological factor was unknown and of sporadic occurrence. (Strumpell's "Primary Acute Encephalitis," Wernicke's "Polioencephalitis Superior Acute," and Leichtenstein's "Post-influenzal Encephalitis," etc.) However, to the younger generation of medical men the occurrence of encephalitis in epidemic form is a disease of considerable novelty.

Etiology.—Almost any age may be attacked, the disease having been reported in an infant four weeks old and in a man over sixty, but, like influenza, it seems to strike particularly young adults between the ages of twenty and thirty-five.

The sexes seem to be equally susceptible; one fact of interest is the large number of reports of pregnant women developing the disease who seem to be particularly liable to the infection, as they are to influenza.

There is a seasonal occurrence, the epidemic in each country reaching its height in the winter with sporadic cases appearing through the remainder of the year, most rarely in summer.

There is a special susceptibility on the part of the present generation to the invasion of what is to them a new disease. At its outset the cerebral forms were encountered, but later a greater variety of new types, notably those in the spinal cord, were seen; whether this has to do with the attenuation of the organism it is impossible to say.

The etiological factor is unknown. Several organisms have been reported, namely a diplostreptococcus by Von Wiesner[1] and others, and a "globoid" organism by Strauss and Loewe.[2] The latter investigators have carried out successfully inoculation experiments into monkeys with nasopharyngeal washings, brain tissue, and spinal fluid, and have reproduced the disease from the cultured organism. Recently Levaditi and Harvier have reported similar success.

The mode of transmission is supposed to be through the nasopharynx. However, its appearance in such large numbers in such widely separated localities almost simultaneously makes one feel that perhaps atmospheric conditions may disseminate it.

The question of communicability is an interesting one. There have been cases

*Read before the Medical Association of the State of Maine.

Digitized by Google

reported of a father and son contracting the disease, and a member of the house staff of a New York hospital died from the disease after having had several cases under his immediate charge. In spite of these incidences, which of course do not prove the point, neither at the Neurological Institute nor at the general hospitals in New York are these patients separated from the others, and no contact cases have as yet been reported from them.

Pathology.—In discussing the histopathology, I should like to lay emphasis upon the disproportion between the severity and extent of the signs of encephalitis and the slight changes found in the brain on necropsy. Many cases with signs indicating profound disturbances of the brain stem and encephalon will show macroscopically almost nothing and microscopically very little. In a very small number the reverse is also true.

In general it may be said that the toxic factor in encephalitis has a predilection for the grey matter; the most extensive changes are found in the basal ganglia, nuclei of the brain stem, and the floor of the fourth ventricle and aqueduct of Sylvius. Lesions have also been found in the posterior roots and the cranial nerves with resulting radiculitis and neuritis. The most characteristic lesions to be found in encephalitis are a perivascular infiltration and microscopical hemorrhages usually occurring from the venules. Mononuclear and plasma cells are seen invading the tissue spaces about the blood vessels, and edema is also encountered. Neuronophagia and engorgement of the pia mater are relatively mild in encephalitis in contradistinction to poliomyelitis.

Symptomatology.—General symptoms: The antecedent history of a previous catarrhal or grippe infection is obtained in a small percentage of cases, and some have followed an influenzal pneumonia. Most commonly the onset of the disease is acute without previous infection, and is ushered in by chills, lassitude, malise, headache, anorexia, and fever, and differs very little from the onset of any acute infectious disease. However, the occurrence of a diplopia, dizziness, or delirium, and the signs of a localizing cerebral or spinal lesion soon serve to differentiate it from other conditions. There are mild forms of the disease which are never severe enough to put the patient in bed; the diagnostic points are few and may often be no more than a transient oculomotor palsy, or perhaps a slight drowsiness for a week or ten days, which may not even have made the patient stop work. The severe fulminating forms of encephalitis are rarely seen, but when they do occur the picture within ten or twelve hours from the onset will consist of vertigo, vomiting, and collapse, perhaps a convulsion, and then the signs of a severe involvement of the brain stem, as evidenced by paralysis of the limbs, cranial nerve palsies, delirium and coma following rapidly upon one another to death.

The temperature in the great majority of the cases is increased; in the average varying from 100 degrees to 200 degrees, subsiding gradually until by the fourth or fifth week it has gone. Fever is occasionally absent in the mild form, and in the fulminating and fatal forms is apt to become very high. Hyperpyrexia is sometimes extreme, probably from a lesion in the temperature regulating center in the medulla.

The pulse commonly corresponds to the temperature, and in a few cases a tachycardia of 140 to 150 is seen.

The headache accompanying encephalitis is seldom troublesome, and usually occipital in location. When severe it is apt to be due to an involvement of the posterior nerve roots at the highest cervical level.

Skin rashes, especially herpes, have been mentioned in some reports.

Photophobia is present and in a hiccough we have evidence of a phrenic nerve affection. In connection with this latter sign, I should mention an epidemic hiccough[3] which developed before and during the the outbreak of encephalitis, both in this country and abroad. A few of these cases eventually developed evident signs of encephalitis.

Special symptoms: Having sketched the picture presented by the abortive, the usual, and the fulminating forms of encephalitis and having detailed the general symptoms, I will take up the remainder of the symptoms and physical signs in conjunction with their localizing centers in the cerebrospinal axis. In that way perhaps we may avoid attempting the impossibility of classifying definite fixed types of this disease—a very futile thing to do because of the diversity of localization in each individual patient.

The most evident symptoms of involvement of the encephalon are the mental attitude and status of the patient. Lethargy, which was at first thought to be present in all cases, is absent entirely in

Digitized by Google

more than half of them. When present, it may vary from slight dullness and apathy to coma. At the outset patients may fall asleep during the day, or they may have prolonged hours of sleep; later in the course of the disease they may with difficulty be kept in conversation for any length of time and be quite somnolent. The impression they give of somnolence is often erroneous, presenting a picture of relaxed facial expression and a ptosis of the eyelids, but they are easily aroused to answer questions or enter into conversation, following upon which they will relax to their apparently stuporous condition. Such a patient may even complain of insomnia. The cause of this peculiar lethargy which accompanies encephalitis has been variously described as a toxic action upon the cerebral cortex or an interference with the corticothalamic sensory tracts.

Many of the patients in the febrile stage of the disease, excepting those with pain, are in a pleasing euphoric state, no matter how seriously ill they are. Delirium is also commonly seen and takes the form of the occupational type, rarely developing into an acute mania. It often simulates the muttering delirium of the third week of typhoid. Irritability, restlessness, mental depression, and anxiety are also seen. Aphasias of mixed types, catatonic states, and catelepsy are occasionally observed; especially noteworthy is the frequency with which we are now seeing mental disorders as residua of the disease; these may be paranoid states, expansive episodes of a paretic type, depressive psychoses, and many psychoneurotic states.

Next to the oculomotor and cortical symptoms those referable to the basal ganglia are the most important. Here there are four sets of symptoms comprising: (1) the Parkinsonian syndrome, in which is seen the mask-like unemotional facies, rigidity of the muscles, and flexed attitude of the body with stooping, the slowness of movements, and a tremor of a coarse oscillatory type suggesting though not always quite characteristic of the "pill-rolling" tremor of paralysis agitans, this may be unilateral or bilateral; (2) Wilson's syndrome of extreme spasticity of the limbs with involuntary smiling, indicating lenticular degeneration; (3) Choreiform and athetoid types which also may be limited to one-half of the body; (4) an involvement of the internal capsule or of either the pyramidal tract or lemnisci will result in hemiplegias, monoplegias, hemianesthesias, or hyperesthesias; rarely a hemanopsia has been observed.

Midbrain lesions are by far the most important and may involve any of the oculomotor nerves, paresis or paralysis of the third, fourth, and sixth nerves being seen either singly or in combination. Accompanying the diplopia and ptoses are seen interesting changes in the pupils; they may be unequal, irregular, and react sluggishly, or are fixed to light and accommodation. In no other disease than cerebrospinal lues is this condition so frequently found. A typical Argyll-Robertson pupil, however, is very rarely seen.

When the disease affects the pontine and bulbar region the syndrome is like that of a polioencephalitis inferior acuta. Trigeminal neuralgia perhaps with herpes indicates a Gasserian ganglion involvement, and anesthesia over its peripheral distribution has been noted. A bilateral or unilateral facial paresis may be present, but this must be differentiated from the Parkinsonian mask. Facial tics are often seen. The eighth and eleventh nerves have not been affected in my experience, but dysarthrias, dysphagias, and extreme tachycardia were noted late in the disease, indicating ninth and tenth nerve lesions. A thickness and slurring of the speech, and deviation or hemiatrophy of the tongue frequently occur and are evidence of lesions of the hypoglossal.

Convulsions have been seen of either the grand mal or Jacksonian variety.

The occurrence of symptoms of cerebellar involvement in the disease is more common in children and is evidenced by acute ataxias, asynergy, hypotonicity, and nystagmus.

Our first conception of this disease was essentially a cerebral one, but during the past winter we have observed frequent evidence of the involvement of the spinal cord. I should like to place particular stress upon the cases showing symptoms of posterior root disease; the radicular types which I have reported elsewhere[4] are characterized by myoclonic twitchings, hyperesthesia, paresthesiæ, and severe lancinating radicular pain. This may occur in isolated areas, such as the face, abdominal muscles, or arm, or it may progress in a descending fashion from the highest cervical to the lowest sacral segment. Carnot and Gardin[5] have reported an ascending myoclonic form. Herpes zoster has also been noted (Tilney and Riley[6]). Localizing symptoms in the brain may or may not accompany this type.

Involvement of the anterior horn will result in a clinical picture simulating an acute muscular atrophy. This is rarely

Digitized by Google

seen, as are those types showing signs of a transverse myelitis with marked sensory impairment below the level of the lesion in the cord.

The relative infrequency of evidences of meningeal inflammation is noteworthy, and is shown by the lack of headache, the rarity of stiff neck and Kernig's sign, and the low cell count in the spinal fluid.

In this connection I will mention also the rarity of choked disc. It is sometimes seen through, and when pappiloedema occurs along with localizing symptoms of a cerebellar, brain stem, or cortical lesion, it is most confusing for diagnosis, and only the presence of an epidemic saves the patient from a decompression operation for brain tumor.

Sphincter involvement is not usually seen until late in the course of the disease and accompanies an increasing coma.

Before closing the discussion of the symptomatology, I should like to lay emphasis upon the marked asthenia, the low blood pressure, and the brachycardia which occur in these patients as the disease advances toward convalescence. This is an evidence of a vagotonic adrenal complex, a hypoadrenalemia, from the toxic effect upon the suprarenal glands.

Clinical Pathology.—The condition of the spinal fluid has been one upon which little stress has been laid. Probably about 70 to 75 per cent. of the cases will show pathological changes of some variety. The fluid is clear, and no films form on standing. The cell counts in my experience have varied from zero to as high as 250, the usual range being from ten to seventy. An increase of globulin is observed in a greater percentage of cases than an increased cell count. Wassermann reactions have been uniformly negative, but the colloida gold test has in many cases shown curves which are identical with either that of paresis or that of cerebrospinal lues.[7] In a recent paper C. Dopter[8] has presented some interesting figures upon the increased sugar content of the spinal fluid in encephalitis. This is a fact of considerable importance and may prove to be a differential point of value in diagnosis.

The blood may show a slight leucocytosis and a polynucleosis. One observer has noted an increase in the non-protein nitrogen, but otherwise the blood chemistry has been little studied.

The urine does not show evidence of any characteristic changes other than the usual febrile urine.

Course and Prognosis.—The tendency in the disease is toward chronicity, the majority of the cases extending over several weeks to months. A fatal termination may however, occur within 24 hours or not until after eight or nine weeks. As the epidemic becomes more and more past history the chronic lesions are becoming a matter of greater concern to those of us who have given hopeful prognoses. Certain of the manifestations of the disease have a special tendency to become chronic. These are the Parkinsonian, psychotic, and a few of the oculmotor disturbances. The mild types are apt to have a short and uninterrupted convalescence, while the rapid and more severe types tend to relapse to chronicity. The prognosis for life in encephalitis is good. Recoveries occur in from 65 to 90 per cent. of the cases, varying with different reports. The prognosis in children seems to be better than in adults, and one author, E. L. Hunt,[9] notes that in cases with spinal fluid in which a cell count is very low or very high, the outlook is unfavorable, while intermediate counts of 40 to 60 offer a better prognosis.

Differential Diagnosis.—There are four diseases which epidemic encephalitis tends most to simulate, viz.: botulism, poliomyelitis, tuberculous meningitis, and brain tumor. The English observers in 1918 considered encephalitis to be an epidemic of botulism. In many characteristics, especially the ophthalmoplegia, they are similar, but we now are able to differentiate them. The absence of acute gastrointestinal disturbances is of importance in differentiation, also the absence of an epidemic.

Poliomyelitis differs from epidemic encephalitis because it occurs mostly in children and in the summer time; flacid pulses are rare in encephalitis, and the extreme acuteness of both the cerebral and spinal forms of poliomyelitis is seldom found in encephalitis.

We find differentiation from tuberculous meningitis often fraught with the greatest difficulty. The chronicity of tuberculous meningitis, the marked meningeal irritation, the increased tension of the spinal fluid, and lastly the presence of the tubercle bacillus will help us to a correct diagnosis; from the clinical aspect alone it is often impossible.

A certain few cases will in every particular simulate a brain tumor, as I have already mentioned, showing papillo-edema, vomiting, headache, and localizing signs. I well remember a patient who was seen

Digitized by Google

in January by the best consultant in internal medicine and two leading neurologists of New York and whose case was diagnosed as one of frontal lobe tumor, in whom complete and permanent recovery occurred.

Cerebrospinal lues may simulate encephalitis. However here the serology will easily clear the diagnosis.

Still other diseases which may more rarely confuse the differential diagnosis are typhoid fever, uremia, paralysis agitans, Sydenham's chorea, the delirium of acute infectious diseases, hysteria, and the various psychoses which it may simulate.

Treatment.—The treatment of encephalitis is entirely symptomatic, for as yet no specific remedy has been found. During the acute febrile stage the patient should be in bed on a fluid diet. Elimination is of importance, fluid being forced by mouth and by rectum if necessary. Colon irrigations have been advocated. Should the fever be high, cold sponges may be used to bring it down and also allay restlessness. For the insomnia and delirium medinal or veronal and bromides or paraldehyde may be given. For the severe hyperesthesia and radicular pains the cold tar drugs help, but codeine and morphine are usually necessary.

Hexamethylenamine is frequently given because of its supposed bactericidal effect on the cerebrospinal system. A method of approach upon which A. Netter[10] lays emphasis is the production of a fixation abscess by the injection of 1 c. c. of turpentine, the improvement resulting being obtained from a stimulating action on those organs which provide the natural means of defense. This theory is not yet an accepted fact. The intraspinal injection of convalescents' serum is a procedure which has been attempted, but so far antibodies for the virus of encephalitis have not yet been demonstrated in the blood. Further effort promises more specific results with this therapy than along any other line. Repeated spinal punctures, as in other types of cerebrospinal disease, have also been found to have a beneficial result from their drainage effect.

The convalescence of encephalitis is apt to be prolonged. A partial rest cure must be prescribed for the patient, and the marked asthenia which I have mentioned should be combated with suprarenal gland, gr. 1 to 5, t.i.d. General hygiene must be excellent to bring about the most rapid recovery.

In the residual paralyses and contractures, massage and galvanic electricity will give the most comfort to the patient and the best functional result.

REFERENCES

[1] V. Wiesner: Die Etiol. Encep. Lethargica. Wien. klin. Wchnsch., 1917, xxx, 933.
[2] Strauss, I., and Loewe, L.: The Etiology of Epid. Enceph. N. Y. Path. Soc. Trans., Feb. 11, 1920.
[3] Dufour, H.: Epidemic Hiccup. Bull. Soc. Med. des Hop., 44, 7, 263, Feb. 20, 1920.
[4] Pardee, I. H.: A. Descending Radicular Type Epid. Encephalitis. Arch. Neuro. & Psych., 4, 24, July, 1920.
[5] Carnot, P., and Gardin, C.: Ascending Myoclonus. Bull. Soc. Med. des Hop. de Paris, 44, 4, 125, Jan. 30, 1920.
[6] Tilney F., and Riley H. A.: Epid. Enceph. Neurological Bulletin, ii, 106, 1919.
[7] Davis, T. K., and Kraus, W. M.: To be published.
[8] Dopter, C.: Hyperglycorrhachia in Epid. Enceph. Bull de l'Acad. de Med. de Paris, 83, 9, 203, Mar. 2, 1920.
[9] Hunt, E. L.: Lethargic Enceph. Medical Record, 97, 20, 815, May 15, 1920.
[10] Netter, A.: Treatment of Epid, Enceph. Bull. de l'Acad. de Med. de Paris, 83, 12, 303, March 30, 1920.

INFANTS THRIVE ON MATERNAL NURSING

Breast-fed babies have a better chance for life than artificially fed babies. This fact is brought out in a brief monograph, entitled "Breast Feeding," which has just been issued by the U. S. Department of Labor through the Children s Bureau.

Studies made in many different countries have demonstrated that the death rate among artificially fed babies is at all times higher than among breast-fed babies; that where for any reason breast feeding is the custom, the mortality rate is low in spite of other unfavorable factors; and that when for any cause breast feeding is increased in a community the infant mortality rate is lowered. Studies made in overcrowded and poverty stricken districts of New York, Chicago and other large cities indicate very clearly that where by race or custom it is the practice to feed infants at the breast, the infant mortality rate is relatively low. It has been further shown that the good effect of breast feeding is manifested not only in infancy, but in later childhood and even in adult life.

The problem of insuring breast feeding to babies involves economic, educational and health aspects. As factors to be considered in promoting maternal nursing, the report includes high standards of medical and nursing care before and after babies are born, instruction of all mothers in the importance of breast feeding and in the means of promoting it, and the interest of the community in this phase of child welfare. The report emphasizes the importance for the nursing mother and her family of an adequate income in order that the mother may have proper nourishment and freedom from overwork and from the strain and worry that are inevitably attached to insufficient income.

Digitized by Google

PRENATAL CARE FROM THE VIEWPOINT OF THE HOSPITAL *

By LIDA STEWART-COGILL, M.D., F.A.C.S.
Philadelphia

IT is estimated by the Children's Bureau at Washington, D. C., that in the United States 16,000 mothers die needlessly each year from childbirth, and 250,000 infants are lost annually in the first week of life.

According to Snow's statistics, based on 100,000,000 population, there must be 2,500,000 births annually and 500,000 abortions, making a loss to our population of 750,000 a year—largely preventable by better obstetrics and prenatal care.

The newborn babe, the most helpless and most precious of all animals, is the most valuable asset to our nation; and yet the medical profession, with all its knowledge of the value of prenatal care, has been silent on the subject or evidenced an indifference which is quite as deplorable and discouraging. But, like the cause of prohibition and suffrage, in due time prenatal care is bound to become a popular topic and a vital issue of the day. I feel, however, that the credit should be given the pediatrists for bringing this subject to a focus.

It is said that the index to a city's civic pride is determined by the death rate among its babies. Naturally the pediatrists have been interested in finding the cause of the high infant mortality, and after robbing the second summer of its terrors and solving the difficult prob'em of infant feeding, the rate still being too high, they went still further back until they found themselves in the obstetrician's domain, and it became necessary to insist that the high death rate among infants could be lowered if obstetricians would do more prenatal work. They showed by statistics that the majority of babies dying during the first year of life did so before reaching the first month of life, and that 75 percent of these deaths could be prevented by prenatal care.

A supervisor of nurses in one of the hospitals with which I am connected, who is of German birth and education, remarked to me that she had never seen anything like the American husband. It seemed, as she expressed it, as if he could not do enough for the comfort of his wife; he fairly carried her around on his hands. "We have nothing like that in our country," she said. We American women proudly acknowledge this to be true, that the American man and husband can not be excelled by any nation. But do you think we are treating him quite fairly—he who is so anxious to have everything done for the best interest of his wife—in keeping him in ignorance of the great value of prenatal care of his wife and child? Or quite fair to that splendid body of workers, composed of a million women, who in two years turned out $100,000,000 worth of surgical articles and garments that the soldiers fighting for democracy might have everything necessary for their welfare? For while 70,000 of these faithful soldiers died in eighteen months of war, there were 250,000 babies under a month who died in one year, and 75 percent of these deaths were due to preventable diseases.

Of all the Philadelphia soldiers who were engaged in eighteen months of war, only 1,267 were killed or died of wounds, while according to the Division of Vital Statistics for 1918, in this city, 5,366 babies died who were under a year, 4,172 of whom were less than a month old, which means that over four times as many Philadelphia babies under one year of age died in a year (1918) as Philadelphia soldiers engaged in eighteen months of war, showing it to be true that it is more dangerous to be a baby under one year of life than to be a soldier in the front line trench.

According to the Children's Bureau, the United States stands fourteenth on the list of sixteen civilized nations in its maternal mortality at childbirth, and eleventh on the list in its infant mortality for the first year of life. These statistics must be kept before the public until every citizen is familiar with them and realizes his duty in the matter—until the banker, the broker and the business man are asking, "What is prenatal care, and why does my wife need it?" and until newspapers and magazines have properly written articles on the subject. When American men and women understand that a large percentage of these maternal and infant deaths are preventable, do you think they will allow such frightful wastage of life to go on? Never! I feel sure when they fully understand the need they will work just as hard to see that the mothers and babies receive proper attention and care as they did for those soldiers.

While searching for words with which to express my deep feeling in regard to

*Reprinted from N. Y. Medical Journal.

Digitized by Google

the necessity of saving those 250,000 children and 16,000 mothers, it seemed to me nothing could be more beautifully expressed than a paragraph in Mr. Roosevelt's article. You are probably all familiar with the article, but permit me to quote this one part: "Alone of human beings the good and wise mother stands on a plane of equal honor with the truest soldier; for she has gladly gone down to the brink of the chasm of darkness to bring back the children in whose hands rests the future of the years." And the nation should by action mark its attitude alike toward the fighter and the child-bearer in peace and war.

As it is an acknowledged fact that prenatal care is the greatest factor in the lowering of the death rate of mothers and babies, it is up to the medical profession to depart from its policy of silence on this subject and present a constructive platform for the furtherance of this work, which will: 1. Arouse the community to the need for more prenatal work. 2. Educate the public for the need of supporting institutions doing this work. 3. Arouse the interest and enthusiasm of managers of institutions and agencies doing this work, to the importance of having a budget of sufficient size for a well-developed social service department. 4. And which will see to it that every baby enjoys its inherent birthright of being properly born.

There is no better place in which to demonstrate the effect of prenatal care upon maternal and infant mortality and morbidity than in the clinics and wards of a well-equipped maternity hospital, where there is every facility for the proper supervision, care and treatment of the pregnant woman, from the earliest months of pregnancy to the end of the puerperium. With a properly equipped clinic, properly kept records and laboratory facilities and an enthusiastic corps of workers, composed of physician, nurse, social worker and clerk, wonderful results can be secured, but there must be a co-operative spirit. Without this, no matter what the equipment or number of workers, little can be accomplished.

Crane states: "It is the team work that counts, not the individual capacity, but the linked capacity that makes a group efficient." In the prenatal clinics every patient must be encouraged to register as early in pregnancy as possible, and attend the clinic at stated intervals, the minimum being every month up to the fifth month, every two weeks until the seventh month, and then be seen either at home or in the clinic every week until delivery. All patients showing toxic symptoms or other serious complications of pregnancy, which are not yielding to treatment, must be admitted to the maternity hospital for observation and treatment.

There will be little decrease in the mortality from childbirth until the standard of obstetrics is raised to its proper place, where it will rank with major surgery. The public should recognize the necessity for skilled attention for every pregnant woman. Upon discharge from the maternity hospital the mother and baby should be referred to a health clinic, where they should report at stated intervals for observation and care. Keeping the mother well between pregnancies is a most essential factor in reducing the mortality and morbidity of mother and baby. There should be a prematernity department, distinct from the maternity hospital, for the pregnant woman who needs rest and good food before confinement, and for those who have had complications in former labors and for those whose condition make it necessary for them to be kept under observation and treatment.

The Babies' Welfare Association seems to be the only organization which is endeavoring to put on record the amount and character of the prenatal work being done by institutions and agencies in Philadelphia. There are thirty-two of these organizations, all members of the Babies' Welfare Association, and forming five distinct types, namely: 1. Division of child hygiene. 2. Visiting nurse society. 3. Dispensary with its own maternity. 4. Dispensary without maternity, and 5. Health centers. In order to obtain these data a questionnaire is sent each year to these different organizations, the results are compiled, and a copy sent to the Children's Bureau at Washington, D. C., and the American Child Hygiene Association for their files. The obtaining of these data is attended with considerable difficulty, and we are indebted to the untiring efforts of our assistant secretary that so much has been accomplished.

At the suggestion of one of the social workers, a monthly record sheet has been printed by the Babies' Welfare Association to be used by the different organizations in order to facilitate this work. This sheet contains all the questions asked on the questionnaire and seems to be giving

Digitized by Google

satisfaction. Twenty of the organizations are using them at the present time, so that statistics are more readily obtained. The main handicap in securing data seems to be due to the poorly developed Social Service Department. The governing bodies, either not realizing the great necessity for such a department or being unable to provide funds for the proper carrying out of this work. Only twenty of the thirty-two organizations sent in their questionnaires this year, but each year shows more cooperation. We are unable to give the number of babies living and breast fed, one month after birth, due to lack of follow-up work. Only five of the twenty organizations are taking routine Fassermann tests and making microscopical examinations of the vaginal secretions, and only fifteen are taking the blood pressure of the patients as a matter of routine, and yet all obstetricians realize the great importance of these tests.

Before these institutions realized what the Babies' Welfare Association was trying to accomplish the questionnaire was received by them with varying degrees of cordiality. This was due, I feel, to the following reasons: 1. The organizations which were rather indifferent toward prenatal work considered it a bore. 2. The organization which was interested and anxious to do good work, but were prevented either by lack of funds or the proper kind of workers. 3. Those workers who had properly kept records in a well-organized social service department were pleased to show the kind of work they were doing.

Do we not owe it to that little atom of humanity, starting on a life more hazardous than that of a soldier in the front line trench to put into effect these measures which are known to remove 75 percent of its perils?

ABSTRACT OF PAPER ON "RADIUM"*

By C. J. BROEMAN, M.D.,
Cincinnati, O.

RADIUM was discovered in 1898 by Mme. Curie. It is extracted from a number of radio-active ores, and there are now in existence about 3 ounces. The radium used therapeutically is not the element itself, but one of its bulkier salts or a gaseous emenation. There are three kinds of radium rays, but the Gamma having a selective action upon the diseased cells, is the most important in medical work.

Plaques, tubes and needles are used to convey the element to the point of application. The application is painless, and is usually followed by a reaction, sometimes severe and very painful. Much skill and judgment on the part of the operator are necessary to make this reaction as mild as possible.

1. The author calls attention to the fact that the popular impression that radium treatments are very expensive is far from the truth. The patient saves considerable time and money because no extended sojourn to the hospital is necessary. There is very little interruption to his or her regular duties. Treatments are painless, and there is no period of convalescence.

2. Radium is the ideal treatment for all forms of basal-celled epithelioma and for prickle-celled epithelioma, if seen early enough, and no glandular involvement is present.

3. In carcinoma of the lip it is the treatment of choice when the case is seen early.

4. Radium is to be preferred in certain uncomplicated cases of uterine fibroid and bleeding.

5. Radium should be universally used in cancer of the cervix and inoperable cancer of the body of the uterus.

6. In all forms of inoperable cancer it relieves pain and hemorrhage and lessens discharge.

7. Radium is to be preferred to the X-ray in cases of goiter because of its exact dosage, deeper penetration and ease of application.

8. It is the preferred treatment in tuberculous adenitis and vernal or spring catarrh, while in certain systemic diseases, such as splenomedullary leukemia, pernicious anemia, and Hodgkin's disease, radium therapy has proved beneficial.

9. In dermatology radium improves and eradicates many heretofore stubborn and incurable dermatological conditions, among which may be mentioned angioma, lymphangioma, keloids, lupus erythematosis and vulgaris, chronic eczema of the mucous membrane of the lips, warts, sycosis vulgaris, intractable pruritis, localized eczema, leucoplakia, extensive hypertrichasis and other skin affections.

10. From my own experience I feel justified in affirming that radium is here to stay, and that the physician who is not willing to recognize its value to medical science is simply refusing to read the handwriting upon the wall.

*From the June issue of the Kentucky State Medical Journal.

Digitized by Google

SUGGESTUMS

Under the Direction of
BERTHA VAN HOOSEN, M. A., M. D.
Professor and Head of Obstetrics, Loyola University School of Medicine, Chicago

TECHNIQUE FOR OPERATION TO CORRECT RETROVERSION OF THE UTERUS

THIS method of performing the so-called Alexander operation is recommended not only because it will correct the retroversion, but because it will correct it and leave no sequelæ to disturb the health and comfort of the patient.

The operation for shortening the round ligaments, which was first performed by Alexander, may be done without opening the abdominal cavity, or it may be done through an abdominal incision. The method in which we do not open the abdominal cavity is called the external Alexander operation. The method which requires opening the abdominal cavity is called the internal Alexander operation.

The external Alexander operation is always to be chosen in cases where a positive diagnosis can be made of absence of pathology in the uterus and the appendages, and where the appendix is causing no symptoms or has already been removed. The fact that it is free from any mortality risk and that the convalescent period is greatly reduced makes it a most desirable way in which to shorten the round ligaments. In addition, we have the concealment of the scar by the ingrowth of pubic hair.

The first step in the operation, whether the choice is the internal or external Alexander, is a dilatation of the cervix and enrettage of the uterus. This is a very necessary preliminary, because we invariably have hypertrophy of the endometrium as a result of the long standing retroversion, and many times we have a stenosis of the internal or external os of the cervix indicating a dilatation.

The second step is the incision, which is made parallel to Poupart's ligament, and about one inch above it, commencing one inch above the spine of the pubis and continuing for one and one-half or two and one-half inches, according to whether the operator desires a small or large incision. This incision should be made through the entire thickness of the skin, but not through the underlying fat and fascia. The fat and superficial fascia are separated by blunt dissection in the following manner: a pair of blunt dissecting scissors are placed between the incised edges near the center of the incision with the blades closed and held so that the scissors stand at right angles to the wound. The scissors are now pushed through the superficial fascia and fat, and the blades slowly and widely opened until the deep fascia can be seen at the bottom of the wound. The deep fascia is now picked up with forceps (Alic pick-up), and incised with scissors for a distance of not more than one-half inch. The tips of two fingers or one finger and the closed scissors can now be inserted through the deep fascia, and the opening can be torn and stretched to the size of the original incision. At this point the aponeurosis of the external oblique appears as a glistening membrane, and can easily and should be cleared of all fat and connective tissue, so that the internal and external border of the external inguinal canal and the intercolumner fibers can be easily demonstrated. The external inguinal canal is occasionally difficult to locate, but if the operator remembers that the fibers of the aponeurosis, which form the external pillar of the external inguinal ring, are attached to the spine of the pubis, there will be no trouble in that direction. The advantage of blunt dissection over incision through the structures beneath the skin is that no blood vessels are cut and the tissues are not stained, thereby facilitating the recognition of tissues.

The third step is to isolate and withdraw the round ligament. To not fail in this, one must not forget that the round ligament is most frail as it emerges from

Digitized by Google

the external ring, and that it is broken up into so many delicate strands that it more nearly resembles a membrane than a ligament. In order to grasp all of these small fibers and to fortify them by including the surrounding connecting tissue, a forcep of the hemostat variety is made to grasp all of the contents of the inguinal canal that can be seen passing through the external ring between the internal and external pillars. This forcep is not removed until the ligament is completely isolated, as it will serve as a convenient land mark in any case that might prove troublesome. After applying the forcep, make gentle traction in the direction of the wound and toward the vulva. As soon as the tissues are seen to give way, another forcep is applied as near to the external ring as possible, and the traction is continued until from one-half inch to one inch of inguinal ring contents have been drawn from the external ring. Traction is kept up and forcep after forcep is applied until four or five inches of tissue has been withdrawn. A branch of the ileo-inguinal nerve is often seen at the external ring, and when seen should be separated and not grasped with the other contents of the ring. If the nerve is not seen, it may be found with the first inch of ring content that is withdrawn, and may be placed so that further traction will not be made upon it. In the second two inches of ring content the connective tissue will give way and the round ligament will remain the sole tissue upon which traction is to be made. In the third or fourth inch a delicate line will appear on the surface of the smooth white ligament to indicate the appearance of the peritoneum. This peritoneum must be pushed back with a bit of gauze so that it may not become a post-operative hernial sac. Traction on the ligament should be kept up until no more of the ligament can be withdrawn, and at point the ligament will be found to be as large and thick as the little finger. If the small artery which often accompanies the ligament is ruptured at any time during the withdrawal of the ligament, do not try to stop the bleeding by applying a hemostat, but continue traction, and when the ligament is completely withdrawn the hemorrhage will have stopped, or the forcep can easily be applied to the bleeding point.

The fourth step is the suturing of the ligaments so as to maintain their position. At this time the ligament is held in position by the forcep which was applied for making traction. If this forcep should accidentally be removed, the ligament would quickly slip back into the canal, and to prevent this the first suture, which is of double No. 1 plain catgut, is passed through the roof of the inguinal canal, and deep enough to include the whole or a part of the round ligament and about one-fourth of an inch above the external ring. The ligament on the opposite side is treated in exactly the same way, including the suture through the roof of the inguinal canal. There is now on either side a loop of ligament from four to five inches long which must be disposed of in some way so that the position into which the uterus has been drawn may be maintained for at least three months. To accomplish this the skin and superficial tissues between the two incisions are lifted up by the thumb and first finger of the left hand in such a manner as to aid in the passing of a forcep from one side to the other just above the aponeurosis and below the tissues mentioned as being in the grasp of the left hand. When the forcep which was inserted on the left side emerges on the right side, it is opened and the middle portion of the loop of the ligament on the right side is grasped and drawn through to the left side, the forcep being closed and left in place to maintain the new position of the ligament. The ligament on the left side in similar manner is drawn over to the right. A suture of double No. 1 plain catgut is now passed on each side respectively through the external pillar, the internal pillar and the loop of ligament which has been drawn through from the opposite side. When this suture is tied, the external ring is closed and plugged with the loop of the ligament on the opposite side, and the portion of the ligament outside of the external ring is now four ply of ligament, while previous to operation it was not more than a delicate membrane.

The fifth step in the operation is the closure of the wound, which is accomplished by passing two or three deep tension sutures of silk-worm gut and a subcutaneous suture also of silk-worm gut on each side, respectively. The tension sutures are tied over a gauze pad and removed on the fifth day. The subcutaneous suture is removed on the seventh day. The patient is not allowed to be out of bed until the tenth day unless the uterus was very small, in which case the patient may be up on the eighth day.

With the external as with the internal

Digitized by Google

Alexander operation, the first step is a dilatation and curettage, and the second step is the incision. The incision, however, in the external Alexander is an abdominal incision and may be made in the median line, three inches in length, beginning just above the symphysis, or it may be made transversely of the same length, the middle point in the incision being about two inches above the symphysis. The latter is known as the Pfannensteil incision. The median incision offers the advantage of ease in enlarging the incision, of better access to the uterine appendages and the appendix, and, being above the pubic hair line, less liability to skin infections. The Pfannensteil incision makes the control of the intestine very simple, and no visible scar is left after the ingrowth of the pubic hair.

The third step in the operation is the isolation of the round ligaments. To do this it is important that the patient should be put in the Trendelenburg position, either at the beginning of the operation or as soon as the incision has been made. A broad retractor placed just over the symphysis in the lower angle of the incision will be of aid in grasping the round ligament near the uterus. The ligament is again grasped about one inch from the uterine insertion; in each case use the Allic pick-up forcep, so that as little damage as possible will be done to the structures. When the two forceps are lifted, the attachment of the round ligament to the border of the broad ligament is plainly seen. A blunt-closed scissor is now thrust through the two layers of peritoneum, which make up the broad ligament. This puncture is made midway between the two forceps and close to the attachment of the ligament and the peritoneum. The scissors are opened wide enough to allow the index finger to slip through the opening, the forcep farthest from the uterus is removed, and the scissor which with the finger occupies the opening already made is now retracted in a direction away from the uterus so that it enlarges the opening and peels the peritoneum from the round ligament. The opening is soon large enough to admit two fingers, and with the fingers the peritoneum is easily stripped from the round ligament in its middle portion for a distance of three to four inches. To demonstrate the importance of releasing the round ligament from its attachment to the broad ligament it is only necessary to grasp the round ligament before it has been detached from its peritoneal covering and lift it one or two inches. It is at once seen that the bladder is drawn upward in front, while the Fallopian tube is drawn upward from behind. In the one case we are liable to produce a bladder hernia, and in the other to produce sterility if the freeing of the ligament from peritoneum is neglected before proceeding to the fourth step.

The fourth step is to secure the loop of ligament so that it will elevate the uterus and maintain the elevation for at least three months. It will be necessary to expose the external ring preliminary to the disposal of the loop. When this has been done a curved artery forcep placed at the external ring is pushed through the abdominal wall, counter pressure being made by two fingers inserted into the abdominal cavity and held firmly at the point where the forceps pierce the peritoneum. The forceps are now opened and the middle portion of the round ligament is grasped; the forceps are then firmly closed and withdrawn from the abdominal cavity, carrying the round ligament with it. The ligament on the other side is treated in the same manner. After the closure of the peritoneum and fascia the loop of ligament which has been withdrawn is secured to the aponeurosis of the external oblique in the region of the external ring with a double No. 1 plain catgut suture. After the ligaments have been sutured to the fascia at the point where they emerge, the central portion of the loop is ligated to the central portion of the loop of the opposite side.

The fifth step consists in closing the abdominal incision. The peritoneum is closed with single No. 1 plain catgut, the fascia with continuous double No. 1 plain catgut, deep tension sutures of silk-worm gut are inserted, and the skin is closed with subcutaneous silk-worm suture. The tension sutures are tied over a gauze pad, and all sutures are removed on the tenth day. The patient is allowed to be up on the twelfth day and home on the fourteenth day.

Digitized by Google

END RESULTS OF THE ALEXANDER OPERATION ON CONCEPTION AND PREGNANCY

PATIENTS with retroversion may be divided into three classes, according to their reaction to pregnancy. The first class will never conceive, the second class will conceive, but will miscarry at the second or third month of gestation, and the third class will conceive, carry the child to full term, but will develop post-puerperal retroversion. During thirty years' observation of gynæcological patients, no exceptions have been noted in this classification.

For patients with retroversion who have been married long enough to establish a diagnosis of sterility, and who are free from inflammatory or new growth pathology, a correction of the retroversion offers great hope, providing, of course, that there is no fault on the part of the husband. The direct cause of the sterility is without doubt the hypertrophy of the endrometrium, and might be removed by the simple curettage, but the discomfort and the proneness to abortion during the first few months of pregnancy in a retroverted pregnant uterus is one of the reasons why an Alexander operation would have been preferable. Not only the trauma of the dilatation and curettage, but the stimulation to the circulation produced by the elevation of the uterus tends to develop the organs of reproduction and make them better prepared for the complicated function of birth.

In cases of retroversion, where the patient conceives, but habitually miscarries at the second or third month, the correction of the displacement (providing, of course, that the retroversion was uncomplicated) will enable the patient to complete her pregnancy following the first conception after the operation. No restriction need be put on the time of the first conception after the operation; unless instructed to avoid pregnancy many patients will be successfully delivered ten months after an Alexander operation.

The course of pregnancy seems to be in no way affected by a previous Alexander operation, with the exception of occasional pricking sensations above the pubis on one or both sides.

This pricking or drawing sensation will be experienced after an Alexander operation whether the patient is pregnant or not, and is referable to the breaking up of the adhesions around the shortened ligaments. Patients should be instructed as to the cause and assured that the symptoms are temporary, otherwise these unusual feelings will be interpreted as a return of the retroversion or some other pathology.

There is no reason why an Alexander operation should result in or be a factor in any form of dystocia unless that style of operation has been employed where the round ligaments are sutured to the anterior or posterior surface of the uterus, and even in these cases may pass through labor uneventfully. Judging from an extensive experience with labor after Alexander operations, it seems as if the labor was much shorter in duration. This is a difficult statement to verify, but it can easily be understood as a result of greater tautness of the round ligaments whereby the entire force of the uterine contraction is exerted on the dilating cervix or the advancing head.

Cases are on record where it has been necessary to deliver the patient by Cæsarian section on account of pathological conditions, the sequalæ of operations to correct retroversion. These unfortunate sequalæ have followed operations of the type which depend for their success on suturing the round ligament to the anterior or posterior surface of the uterus. That portion of the uterine wall of which the round ligament has become so intimately a part when an operation like the Webster-Baldy has been performed seems to be unable to functionate in a normal manner, and as a result we have a condition similar to a new growth of the uterus or to the conditions produced by a ventral fixation.

If there could be found no other reason for correcting a retroversion other than its deleterious effect upon pregnancy, that in itself would warrant attention to every case that comes to the knowledge of the physician. The specialist aims to correct a strabismus before the sight is injured, to treat a talipes before the patient has become a cripple, and thinking along the same line a retroversion should be cared for early before it has prevented conception, produced an abortion, a post-puerperal retroversion, a complete prolapse, or furnished the stimulation for a new growth or uterine hemorrhages.

Digitized by Google

INTERESTING LETTER FROM SAMOA

Apia, Samoa, July 2, 1921.

My dear Editor:

I AM sending you herewith money order for three dollars, two for the "Journal" and one for postage. If this is not enough, let me know and I shall forward you the balance.

You ask for something about the life in Samoa. One finds it much the same in any tropical country. Apia, the largest village of Samoa, and the commercial center of the Islands, is famous as the home of Robert Louis Stevenson and his American wife. Vailima, the old Stevenson home, is now used by the New Zealand Government as the residence of the Administrator of Western Samoa. Towering above the clearing around Vailima is Mount Vae, upon the summit of which Stevenson and his wife are resting from this world's strife. Only the songs of birds and the footfalls of a few energetic lovers of Stevenson, who struggle to the top of the mountain, disturb the peace of the wooded slopes.

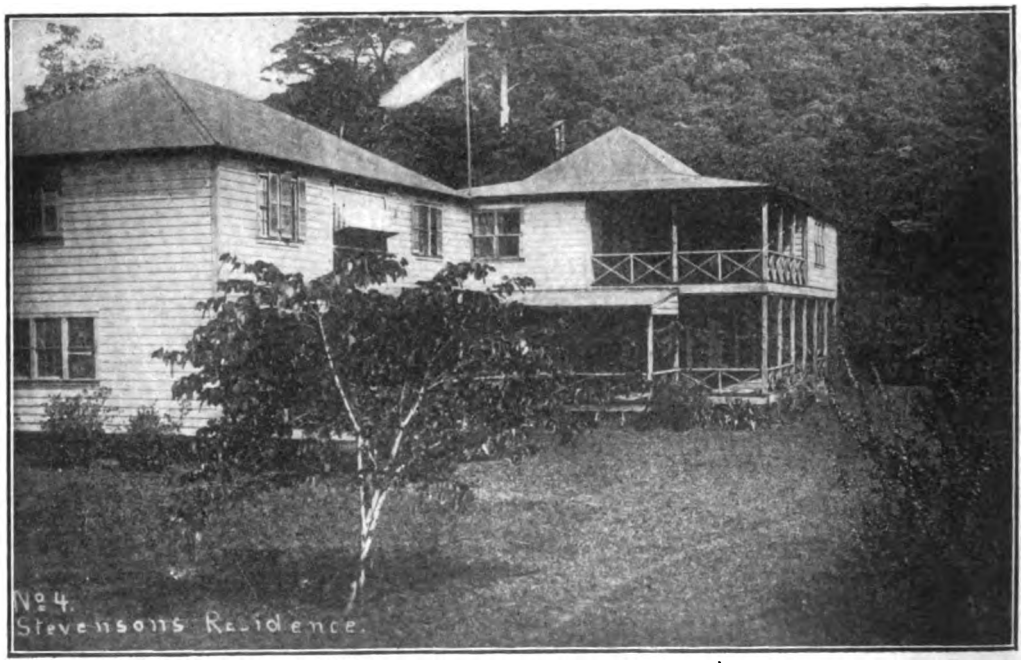
The Samoans are a charming and hospitable people. Their skins are a beautiful shade of brown, their eyes large and dark, their hair black and lovely. They are a clean race, always bathing and laundrying their clothes in the pretty little island streams that pour down the mountain sides into the romantic South Seas. It is a joy to go into one of the beautiful Samoan houses and see the order and cleanliness.

The life in a native village is a community life. The Chief rules over his little unit with absolute authority, giving tasks to his subjects and dividing the fish, taro, and bananas among the families of his little kingdom. He registers the births, reports the deaths, and is responsible to the white authorities for the good government and sanitation of the village. The communal life has many good points in primitive Samoa, but it destroys all incentive to work. But why should a people blessed with food, clothing, and shelter, gained by little effort, toil and struggle for worldly wealth which brings little hap-

Digitized by Google

piness to their white brothers of the temperate climes?

I am sending you a photograph of two Samoan huts. They are always surrounded by well-trimmed grass plots. The floor is slightly elevated, and is covered with smooth round pebbles from the beach. Over the pebbled floor the native spreads clean cocoanut mats and the interior is furnished. No nails or screws are used in the construction. Sinnet braided from the fibers of the cocoanut binds the carefully jointed frame work of the roof, erected upon poles. The dried leaves of the sugar cane make a rainproof thatch for the torrential tropical rains that pour down six



Digitized by Google

months of the year. With unlettered skill the Samoan turns the rude materials into an artistic dwelling.

The native lives on cocoanuts, fish, taro (a starchy root), roast pork, and chickens. None of these foods require much hard work to produce. The European with his appetite sharpened by ages of civilization is dependent upon the monthly steamer for his food. The whites work a few hours, then dance, swim, tennis, and drive for recreation.

My work is almost entirely with the natives, and is charity. I like it immensely and find much that is interesting. The Samoans chiefly suffer from Filaria with resultant elephantiasis, hookworm, other worms, tuberculosis, and Framboesia Tropica, called yaws. Influenza decimated the population of the Islands. Just now we have a mild variety of measles.

I am living in a large bungalow with large verandas all around it in the midst of a grove of cocoanut trees and other tropical plants. In the front the grassy lawn stretches to the beach. In front of the house, about three hundred yards away, the ocean breaks white over the coral reef. Just behind me is a native village of fifty or sixty to whom I am most devoted. Their chief, Tofae, comes from Samoan royal blood. In gratitude for the medical care given them, they have adopted me and made me a Samoan princess with the title of Samalaulu. Another American woman, Mrs. Robert Louis Stevension, was so honored by the Samoan people. With my brown friends so near, I am always certain that I will be well cared for.

American Samoa, with its naval base, Pango Pango, is eighty miles from here. I enjoy an occasional visit with our Americans who are stationed in that beautiful spot.

I shall be glad to have your Journal and know what is going on in the outside world. Our mail comes but once a month.

Should you use any of this letter for publication, please mail a copy of the number to my sister, Mrs. Alfred B. Wright, 743 Elmwood Avenue, Buffalo, N. Y., and to Mrs. A. E. Hubbard, 373 Franklin Street, Buffalo, N. Y.

Very sincerely,

REGINA FLOOD KEYES, M.D.
American Consulate,
Apia, Samoa.

Dr. Regina Flood Keyes and a crew of Solomon Islanders. Dr. Keyes is standing behind Captain Steffany, who was formerly a South Sea pirate.

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association Headquarters, 637 Madison Ave., New York

A. W. H. WORK IN SERBIA

Letter from Emily Clark MacLeod

THE difficulties of work in Serbia may be estimated somewhat when you know the transportation problems and difficulties. Wishing to go through the new Serbia from Belgrade into old Serbia by way of Salonica, I was obliged to take the boat from Ragusa, commonly known as the Riviera of Austria, from new Serbia to Barrie, Italy, a train overland to Brindisi, another boat to Pireus, Greece, trans-ship to Salonica, now part of the Greek Empire. From there a very poor train service over the new frontier into old Serbia. On every hand we saw the destitution caused by the recent war—whole villages destroyed, windows out and a general appearance of poverty.

I reached Veles, Serbia, in the middle of the night on January 10th. There was snow on the ground and a downpour of rain and a mile of mud underfoot. I inquired for a hotel in my sweet ignorance. (There probably was none for a day's journey.) They told me that if I was an American that possibly the American Women's Hospitals would take me in. I had inquired for a hotel because I did not want to trouble the people at the hospital at that late hour, but found no accommodations in town for any traveler. So in pantomime language, very bad German and a few words in English, I got the luggage piled into the mail cart, which looked like a combination of a one-horse chaise for decrepitude, and hay cart of very ancient design in pattern. I sat on the front with the driver, and my feet were hanging down on the whiffletree in danger of the half-dead and half-alive beast in the shafts, and so we came to the Veles American Women's Hospitals.

My reception was all that one could wish, for by now it was 2 a. m. and still raining. But Dr. Gray took me in, made me comfortable on a couch in the family sitting room, for every bed in the house was occupied by personnel except the guest chamber, in which slept the Minister of Health of Serbia. He had been spending the week end at the Veles Hospital approving the work and talking over the future possibility of work in Serbia.

They have at Veles a preventorium in which about a hundred crippled children are being cared for, as well as convalescents from the main hospital. This single piece of work impressed me very much because of the need of these chlidren. Many of them are orphans, and those not orphans of the very poorest parents, unable to pay for care if there was any other place in the city. These cases included a large number of bone tuberculosis and other crippling ailments.

At the main hospital, which is largely surgical, there were eighty people in bed, and in the first floor clinic rooms Dr. Cover was caring for from 100 to 200 patients in the morning, the clinics being held three times a week. The medicines here and dressings are entirely free, as is all other treatment at the hospital and preventorium. Only the poor are treated, so as not to interfere with the income of the few local doctors left in Serbia. In the

Digitized by Google

surgical hospital most of the cases are kept for only a short time, and this especially in the case of children who are removed to the preventorium for convalescence. In this way a very large number of surgical cases are taken care of each month in proportion to the size of the hospital.

I had previously visited Belgrade, Brod and various other places in Serbia where relief work was being carried on, and this central plant in Veles, it seems to me, stands out as perhaps the finest piece of strictly medical work being done now in Serbia by a relief organization. The three other small hospitals conducted by the American Women's Hospitals Committee are equally efficient, but not so large.

It is of interest that the Minister of Health is by birth a Hertzegovinian (from that part of the country which is now part of the new Empire) and had served with the Serbian Army during the war. This doctor is very strongly in favor of the American Women's Hospitals remaining in Serbia indefinitely. Twelve new welfare stations have been opened by the American Red Cross. The relations between the American Red Cross and the American Women's Hospitals are most cordial, and it is possible that the surgery from these stations may be sent to the American Women's Hospitals at Veles.

I found in Belgrade that the American Women's Hospitals had a very good standing with the Serbian people as well as the British and other relief organizations, some of whom had already given large quantities of supplies for our work, and others were contemplating closing out their own work and giving the remaining supplies for the American Women's Hospitals.

[From our Special Correspondent]

The Academic Course of Sanitary Service at Rome, Italy

By CELIA LOLLINI, M.D.,
Member of the Society of Medical Reform, Rome, Italy.

THERE exists in Rome a very comprehensive and extended sanitary service which is dependent upon the Bureau of Hygiene of the Marne.

This sanitary service is not limited to primary schools only, but is extended to schools of the second grade and also to private schools.

The general direction of this work is in the hands of the sanitary officer, who is aided by a medical inspector. This medical inspector oversees the Museum of Hygiene and the Propaganda of Hygienic Instruction.

In sixty primary schools, twenty second-grade schools, and one hundred and sixty private schools hygiene is now taught by special physicians set apart for this service.

Specialists for abnormal children, osteopaths, aurists, occulists, dentists, dermatologists, throat and lung specialists are all employed. These physicians are supplemented by twenty young women students of medicine.

These are all supervised by a medical department, which is held responsible for the integrity of the services rendered. Moreover, this medical department must edit and correct all lectures given for the propagation and teaching of hygiene. This department is also held responsible for all suggestions made by these physicians for the prevention of disease and for the recurrence thereof.

In each school there is a bathroom for the children and a competent attendant to supervise the bathing.

All food is carefully inspected and is thoroughly hygienic.

There is always a consultation room for the physicians.

Many lectures, with suitable apparatus for illustrations, are given. Tables, charts, photographs and films are in abundance. There is always a fine library of books on the subject, also open-air schools for tubercular children.

Children are carefully examined at regular intervals, and all recent and scientific means are used, both to prevent and cure the ills of childhood.

Open-air treatment, sun-ray baths, carefully directed gymnastic exercises, proper breathing, dancing and other educative and recreational methods are employed.

By this brief account it is easily seen that the movement for better health in Rome will not only be conducive to the physical uplift of this generation, but will help all the generations yet to be born, so well organized is it and so far-reaching in its aims and scope.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

EAST IS EAST, AND WEST IS WEST, AND SURELY THE TWAIN SHALL MEET

THE rapidity of modern transportation tends to make the whole of mankind more and more akin.

The East fairly shakes hands with the West by means of the airships and wireless.

Smaller groups are being merged into great central ones—where each group holds fast to its personality, but is strengthened and broadened by becoming a part integral of a greater body. The various States of the United States are in a great measure self-governing, but all are merged in a National Government. To make this National Government effective, messages are sent from the States to the executive center at Washington. These messengers we call Congressmen and Senators, and their voices are heard in the halls of legislation, and the concurrent result of all is considered the national voice.

So, to have this union of the medical women as effective as it need and could be, there should come messages from these women scattered throughout the world to some central place of distribution in order that all may be familiar with the work now done by the separate groups.

The world at large has but little realization of the wonderful medical work now done by women physicians. This ignorance is largely due to want of knowledge. This knowledge, which would be most inspiring and helpful, could easily be disseminated by messages sent from time to time to be printed in the "Medical Woman's Journal." How electrifying, revivifying and inspirational such messages would be, not only to medical women, but to the laity at large!

A letter full of interest comes to us from Rome, which is printed in this issue of the "Journal." This puts us in touch with medical work in Italy. While much of the work so reported is already in use in America, it is nevertheless inspiring to note how widespread is the effort to help the life of the future through hygienic methods. In this same issue appears a letter from Samoa, that very interesting island known to but few, yet immortalized by Stevenson.

No profession is so thoroughly altruistic as that of medicine. The physician of today is largely occupied in the prevention of disease, the means by which he earns his daily bread. This association of women physicians will not only reveal the work of medical women throughout the world, but may be used as a powerful means of aiding welfare work of all kinds and in all countries.

This, then, is a plea that each month more messages from the scattered groups of medical women may appear in the "Journal."

The Second International Congress for the Protection of Children, which met in Brussels in July, voted to establish its own international bureau at Brussels. The bureau, although affiliated with the League of Nations, will be virtually autonomous. A proposal made by the British delegates that the League of Nations undertake to execute the work which the conference outlined for itself in 1913 was rejected after vigorous opposition.

Digitized by Google

What is Being Done for Women and Children in all Parts of the World

Japanese Women are Admitted to Universities—Much Dissatisfaction Among Women

The campaign of the women of Japan to remove such discrimination as prevents them from receiving higher education in the universities continues to meet with success. The Imperial University has admitted women on the same terms as men, and the Tokio Art Academy, which in the whole history of its existence had not admitted women, has altered its policy. The Wasseda University has also opened its doors to the sex.

Upper House Rejects Bill Allowing Women to Attend Political Meetings

There is considerable indignation in feminist circles in Japan owing to the rejection by the House of Peers of the bill providing for the amendment of the police regulations so as to allow women to attend political meetings or to promote such gatherings. In Japan women are forbidden to attend political meetings, either as audience or as speakers, nor are they permitted to organize such meetings. Under the police regulations women are "vagabonds, robbers and Liberals," and it is the desire of the reactionaries of Tokio—and the House of Peers is largely reactionary—to maintain them in that state of humility, subservience and dependence which is so eloquently described by Kaibara Ekken in the standard Japanese work upon the subject, the "Onna Daigaku." This work which lays down the position of women, is, we may mention, no longer the favorite reading in feminine circles in Tokio that it used to be, and probably very few girls of the present day have read even a line of it. Nevertheless the great majority of Japanese women are by tradition and heredity saturated with its principles.

Of recent years there has been a great revolt against the submission of women to men. A "New Women's Association" has been formed which has a wide and ever-increasing membership, and which publishes "Josei Domie" (Women's League), a monthly magazine devoted to securing the political and social freedom of the weaker sex. What they desire to do is to get rid of the old Oriental ideas derived from China which are set forth in the fourth chapter of the "Onna Daigaku." Here they are: "A woman has no particular lord. She must look to her husband as her lord, and must serve him with all worship and reverence, not despising or thinking lightly of him. The great life-long duty of a woman is obedience. In her dealings with her husband, both the expression of her countenance and style of her address should be courteous, humble, and conciliatory, never peevish and intractable, never rude and arrogant—that should be a woman's first and chiefest care. . . . A woman should look on her husband as if he were heaven itself, and never weary of thinking how she may yield to her husband and thus escape celestial castigation." By Japanese custom and tradition she is not even allowed the privilege of jealousy. Indeed, jealousy is the fourth reason for divorce. Always must she submit, even to the point of being perpetually and officially referred to by her husband as "my stupid wife."

Canada—Five acts in compliance with the Washington Draft Conventions have been adopted by the Legislature of the Province of British Columbia on the following subjects: (1) the limitation of hours of work in industrial undertakings to eight in the day and forty-eight in the week; (2) the employment of women before and after childbirth; (3) the employment of women during the night; (4) the minimum age for admission of children to industrial employment; (5) the night work of young persons employed in industry. These laws are to come into operation on a date to be fixed by the Lieutenant-Governor of Canada by proclamation, concurrently with or after the coming into operation in the other provinces of Canada of laws containing similar provisions. No laws relating to these subjects have yet been passed this year in the other provinces, but it is understood that the Government of Ontario will propose the holding of a conference of representatives of the various provincial governments with a

Digitized by Google

view to obtaining concurrent action. Certain of the Draft Conventions are already covered by existing provincial laws.

Uruguay—Child labor in glass factories in Uruguay. In March, 1921, the National Bureau of Labor submitted a report to the Government on the exploitation of children in glass factories, and asked that a bill then pending on the employment of women and children be given early consideration. A Montevideo daily paper of about that date contained an article describing the very bad conditions under which the children work and the excessively long hours.

A report on assistance to war orphans was recently presented to the Italian Parliament by the president of the Council of Ministers. In August, 1920, there were 280,096 war orphans in Italy, which number is between 1.5 and 2 percent of the total population of the provinces most affected by the war. Over 92 percent of these children are from families of wage-earners. Assistance is given by a national agency with funds partly from public and partly from private sources. It co-operates with all private agencies aiding children in the country, and is trying to keep the children with their families in so far as this is possible.

Vacant lots for playgrounds. A measure was introduced in the House, July 25th, by Mr. Focht, chairman of the House District Committee, which would authorize the District Commissioners to take over any vacant lots in the district, not owned by the Government, to be used for playground purposes until such time as the owners thereof show evidence of intention to occupy them for building purposes.

Vacations for Chicago children. Through the co-operation of the Illinois Agricultural Association and the railroads, children from the crowded tenement districts are being sent on free two weeks' vacations to farms within a radius of 100 miles from the city. Requests for such children are being received from farmer members of the Association at the rate of 15 to 25 a day.

Social Service Departments of the City Hospitals of St. Louis, Mo., was started in 1912 at the St. Louis City Hospital, with one worker. There is now a supervisor, with nine assistants, at the main hospital, and two at the colored hospital. A worker of the children's division visits the home of every child taken to the hospital and makes a careful report. Another division has charge of maternity work, and another of foundlings.

A Street Fair, with "Save the Babies" for its slogan, is being conducted as a traveling exhibit in various parts of France, under the direction of the American Red Cross. A circle of green and orange tents surrounds a model playground, such as is found in many American cities, but is new to France. A Punch and Judy show, a common feature of all the French fairs, teaches sugar-coated lessons in hygiene. In the other tents are exhibits of clothing and food for children, charts, etc., and an American dentist demonstrates the care of children's teeth. In a room enclosed in glass, babies are given a scientific bath and are dressed in model clothes in the presence of interested audiences. The Fair has aroused much interest everywhere, and in Paris attracted nearly 10,000 visitors a day.

The organization of a State department to deal with matters of child hygiene is one of the measures advocated by the Maryland League of Women Voters. It is intended that the bureau shall carry out the provisions of the Sheppard-Towner bill in Maryland, if the bill is passed by Congress. If it fails to pass, the bureau would administer any State funds appropriated for child welfare.

EMERGENCY CALL FOR OVERSEAS SERVICE, WUCHANG, CHINA

WANTED—A woman physician, regular school, and Episcopalian, to volunteer for service in the Woman's Department of the Church General Hospital, Wuchang, China. The hospital is a fine modern plant with one woman doctor at the head of it. Another is much needed to help meet the tremendous opportunities which the hospital affords in ministering to the suffering women of the great district of Hankow. Remember, in China it is not a case of a man or a woman doctor, of both of which there are comparatively few, but the Chinese women will have no medical aid at all except that given by women physicians. Where shall the women of China look for help, except to the splendidly equipped Christian women of America, who are trained physicians? Please pass the news of this need along. For detailed information write Mrs. N. P. T. Burke, 362 Adams St., Milton, Mass.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 9

September, 1921

$3 per year in advance
Single Copies, 25 cents

VITAMINES IN MILK*

By FRANCIS B. HART, M.D.
Brooklyn, N. Y.

A MEETING of this Association would be incomplete without a résumé of the interesting work which has been done in investigation of the most fascinating subject of vitamines.

Next to the all-important tuberculin testing of the herd, no greater champion of the cause of pure, fresh, raw, certified milk has as yet come forward than the vitamines or accessory food factors. Certified milk contains all the known vitamines in greater amount than other milk because of its freshness and the absence of pasteurization in its production.

The vitamin theory proposed by Funk in 1911 as an explanation of the observation of Eijkman in 1897 that pigeons suffering from polyneuritis could be cured by giving them polishings of the rice kernels (called by Funk the anti-neuritic vitamin) has developed petal by petal, as it were, like a bud gradually growing and expanding into a flower, until the flower has bloomed forth with its petals—the fat soluble A and the anti-rachitic vitamines—the water soluble B and the anti-neuritic vitamines and the anti-scorbutic vitamin. Though far from complete in its growth, the present immaturity reflects the great beauty of the whole.

The plant world is the great source of vitamin, and all of the higher animals, including man, receive their supply, either directly or indirectly, from this source. The plant especially by means of its green leaves, is able to synthesize this essential substance, and we obtain our necessary supply by eating vegetable material or animal food from animals who have obtained their supply from the vegetable kingdom. The cows take in large amounts in their fodder, and, beside supplying the calf with the necessary potent factors, are, by means of their milk, a valuable source of vitamin for man. Milk is rich in vitamines, especially the fat Soluble A and the water Soluble B, or anti-neuritic vitamin, and contains less, though usually a sufficient amount of the anti-scorbutic vitamin. As it is well balanced in protein, fat and carbohydrate, and mineral salts, especially calcium, it represents a complete diet in itself, and, for this reason, has been termed by McCollum a protective food. It has some deficiencies, however, though of minor character. It is diluted with considerable water, and therefore must be taken in bulk to supply enough of the vitamine factors. At least sixteen ounces should be given to young infants, and a quart daily to older children. Milk is low in its content of iron, and for this reason other foods, such as fresh vegetables, eggs, etc., should be supplied. It has a variable, unstable and sometimes insufficient amount of the anti-scorbutic vitamin, consequently fresh fruit juices or infusion of vegetable material should be given with it in infant feeding.

Milk, as has been said, is rich in fat Soluble A vitamin, and, as this is held by many to be synonymous with the anti-rachitic vitamin, it is likewise rich in this factor. Tozer found that young guinea pigs on a diet deficient in fat Soluble Vitamin, even with excess of anti-scorbutic vitamin, developed enlargements of the costochondral junction similar to the beading of rickets. Mellanby, working with puppies, found that fat Soluble Vitamin controlled the calcification of the teeth. With a ration of 200 cc. of skimmed milk and some white bread daily, the shedding of the deciduous teeth was retarded, development of permanent dentition was delayed, the arrangement of the teeth in the jaw was poor, and the calcium content of the teeth was less than normal. E. Mallenby has shown that fat Soluble Vitamin is responsible for the calcification of bone. With the white bread and skimmed milk diet puppies developed a beading of ribs. This condition resembled the disease, rickets, in children. These observations, of course, indicate the importance of the fat constituents of milk, as well as the impor-

*Read at the Sixteenth Annual Meeting of the American Medical Milk Commissions, held in Boston, Mass., June, 1921.

Digitized by Google

tance of the mineral salts, especially of calcium.

Let us now consider the factors which influence the content of the vitamines in milk.

Funk in 1914 was the first to suggest that the diet of the milk-producing animal might influence the relative anti-scorbutic potency of the milk produced It has been shown that the mammary gland does not have the power to synthesize the anti-neuritic vitamin, and that its presence in the milk is dependent upon its supply in the diet. Andrews in the Philippines showed conclusively that puppies fed on human milk from women suffering from beri beri developed paralysis of the hind legs from the deficiency in the milk of the anti-neuritic vitamin.

McCollum also demonstrated the same thing in feeding rats on diets deficient in vitamin, showing lack of growth and viability in the young. Taylor also proved that babies nursed at the breast of mothers whose diet was low in anti-scorbutic vitamin soon developed symptoms of scurvy. This tends to prove that the cow is dependent upon her ration for her supply of vitamin, and that the quality of this ration will greatly influence the vitamin content of her milk.

Dutcher and others fed guinea pigs during the winter of 1918, 20 cc. of autoclaved milk and oats. This milk was from cows fed the usual winter ration, a grain mixture of corn, barley, oats, middlings and bran oil meal, and, for roughage, alfalfa and silage. These guinea pigs died of scurvy in the usual time. During the following spring others of these guinea pigs similarly fed ceased to lose, and the scurvy symptoms improved and some of the guinea pigs even gained in weight. It was then found that the herd had gone out to pasturage ten days before, and it was concluded that the fresh pasturage feeding had greatly improved the anti-scorbutic properties of the milk. Further experiments proved that the vitamin content of cow's milk is dependent upon the vitamin content of the ration ingested by the cow. It was found that **20 cc. of summer milk were superior in nutritive value and anti-scorbutic potency to 60 cc. of winter milk.**

Hart, Steenbach and Ellis also fed three herds of cows—the first he d on dried roughage, alfalfa hay, and cornstalks and finely ground grain; the second herd on summer pasturage with fresh, green vegetable material, alfalfa clover, blue grass, etc.; the third herd on a winter ration of corn silage, roots, especially sugar mangel, grains and mixed hay. The guinea pigs had been fed a basal diet of heated alfalfa oats and salt, an anti-scorbutic deficiency diet. Results: 30 to 50 cc. of summer pasture milk were needed to completely protect the guinea pigs against scurvy. Seventy-five cc. of the dried fodder milk were required, and also 15 cc. of the winter ration milk were necessary. The conclusions were that the diet was richer in anti-scorbutic properties when fresh green vegetable material was fed, and poorer when dried stuff or winter ration was given.

Hess and Unger fed five cows for three weeks on a normal winter ration of silage —hay and mixed grains. One part bean meal, 8 pounds of dried beet pulp, 2 parts oil meal, hominy, gluten, bran, 12 pounds of straw and 4 quarts of molasses. This ration is deficient in anti-scorbutic properties. The cows were then fed for three weeks in a pasture. The guinea pigs, fed the dried fodder milk, developed scurvy in three weeks and died in eight weeks. The guinea pigs fed pasture milk were alive after seventeen weeks, and only two showed mild signs of scurvy.

Dry fodder contains very little anti-scorbutic vitamin.

Barnes and Hume also noted seasonal variation in the anti-scorbutic properties of cows' milk.

The satisfactory results of summer milk feeding are due to the increased amount of anti-scorbutic, as well as fat soluble vitamines. There is usually sufficient water Soluble B vitamin because this is more stable and less injured by drying and airing. There is evidence, however, to show that, when the diet of the cow is deficient in water Soluble B, the milk will also be found deficient.

Let us now consider what ration our cows have been receiving, with a view, if possible, of improving their vitamin intake, especially during the winter months. There has been a tendency to discourage grazing of the herd on the certified farms. Instead of this alfalfa, clover and other grasses, green peas and oats are cut and fed to the cows in their stalls. A certain amount of exercise is given each day by turning them out for a while into enclosures. Would it not be better, where pasture is adequate, as it should be, to allow the cows to graze on alfalfa, clover, blue

Digitized by Google

grass, red top, timothy, etc., rather than on dried alfalfa or hay, such as is usually fed all winter? They could then be given corn silage and mixed grains in addition as is usual.

On poor farms, where the ordinary country milk is produced, the following ration is often used: Equal parts of gluten, wheat middlings, ground oats and barley, and for roughage, chopped timothy hay and oat straw. Such a ration is low in antiscorbutic and fat Soluble A vitamin.

Far better than this is the ration given on our certified farms, of alfalfa, clover, red top, various grasses, corn silage, as well as a generous mixture of grains and sometimes sugar mangels in the form of beet pulp. But how often, instead of the fresh, green stuff, newly cut, are not dried alfalfa, clover and other grasses and hay used which are low in antiscorbutic properties? How much richer our milk would be in vitamines if we fed our cattle, especially during the winter, dried young alfalfa leaves, clover and other grasses, spinach and cabbage leaves, whole corn, mangels or sugar beet, and probably carrots, parsnips, and some swedes for the fat soluble and anti-scorbutic vitamines, and the usual grains well mixed and varied, corn, gluten, wheat, barley, oats, bran and middlings for the water Soluble B vitamin. Might not yeast and rice polishings, as waste products, be readily available and useful as further sources of water soluble or anti-scorbutic factors?

Due regard must, of course, be paid to the nitrogen balance. One writer found that alfalfa, corn silage and a cereal grain mixture—barley, oats, corn, wheat, etc.—in the usual ration of 1 to 3 pounds of milk (to which other additions might be made) were adequate to supply proper nitrogen equilibrium. Soy bean and peanut are products suggested by McCollum as being very rich in protein, which might be used in dairy feeding. McCollum says all grains are poor in fat Soluble A, and that they should always be mixed. He shows that a cow fed on the whole wheat alone, which is sufficient for growth, was small and poorly nourished, whereas a cow fed on whole corn was large, sleek and well nourished.

Considerable work has yet to be done to determine the vitamin content of the various foodstuffs. It will probably be found, as pointed out by Rosenau, that much may depend upon the fertilization or chemical nature of the soil, and that plants themselves may be in poor condition from a lack of vitamin substance. This hypothesis, as well as the low anti-scorbutic potency of the ration, might account for the development of scurvy in a child fed on raw milk reported by Faber of San Francisco, aside from the reason which he considers likely, of the addition of .05 percent sodium citrate as a causative factor.

Let us next consider other conditions which influence the content of vitamines in milk.

A few words as to the color. Rosenau points out the fallacy of considering whiteness as synonymous with purity. "Pure" white milk is usually the "dead white" milk of the winter time, where there is absence of fresh, green vegetable matter, and, as has been shown, a consequent deficiency of vitamin, whereas milk in the summer from pasture or soiling fed cows has a yellow tinge. Butter from such milk has a rich yellow color, and this is significant in the light of recent conclusions that yellow-colored fats are richest in fat soluble vitamin.

1. Freshness of the milk.
2. Pasteurization.
3. Scalding.
4. Boiling.
5. Drying.
6. Evaporating and canning are other factors influencing milk.

First as to the stability or resistance of the vitamin itself. It is well known and has been frequently proven that water soluble B vitamin is little affected by heating and drying. The fat soluble A is also resistent and is stable under ordinary conditions. Osborne and Mendel have shown that the fat soluble vitamin will resist the action of live steam for 2½ hours without destruction, and that dry heat with a temperature of 100 degrees Fahrenheit, with access of air, will destroy it very slowly. Also that water soluble B is not harmed by prolonged boiling with an acid (6 percent Hcl. acid). Both these vitamines, then, are little affected by pasteurization, scalding, boiling, drying or evaporating.

The anti-scorbutic vitamin, on the other hand, is more easily affected.

First. Freshness of the milk has a marked influence on the anti-scorbutic value of the milk. Ageing of the milk tends to diminish the potency of the anti-scorbutic factor. Hess reported a case of scurvy which developed on raw milk forty-eight hours old, apparently caused by the

Digitized by Google

diminution of the anti-scorbutic power from standing.

Second. Pasteurization of the milk with ageing materially affects the anti-scorbutic factor. Grade B milk, for example, is brought to the city for pasteurization many hours after it is obtained, and often 24 to 48 hours elapse before it is delivered to the consumer. Such milk has very poor anti-scorbutic quality. Grade A milk is usually pasteurized at the country stations, and oftentimes 24 to 48 hours pass before it is delivered, so that it, too, is low in anti-scorbutic properties. Certified milk, on the other hand, is delivered fresh and without being pasteurized, and, according to our standards, must reach the city for delivery within thirty-six hours after milking. Hess has reported two cases of scurvy developing in infants fed on pasteurized milk which had been kept for forty-eight hours on ice.

It must be emphasized here that commercial pasteurization is not at all comparable to the simple home process of pasteurization. The former process includes, besides heating, handling, clarifying, then heating, pumping, cooling and subsequent ageing, all of which have a harmful effect. Home pasteurization of fresh milk shortly before use is much less harmful and probably lowers the vitamin content very little.

Scalding means raising the temperature quickly from 70 to 100 degrees F. for 1½ minutes, and then for four minutes during cooling.

If the milk is fresh and used soon after scalding, there is very slight effect on this factor.

Boiling. It has often been proved that, other things being equal, milk subjected to even a low degree of heat for a prolonged period, is more destructive of the anti-scorbutic vitamin than milk raised even to boiling for a short time. Boiling of fresh, raw milk shortly before using has very little harmful effect.

The addition of an alkali to the milk, however, before scalding or boiling has a very destructive effect on the vitamin.

Drying. It has been claimed by Hess that milk can be dried and still retain a large part of its anti-scorbutic power. The milk used for drying should be fresh and rich in anti-scorbutic vitamines. Therefore, preferably summer pasture milk. It must be dried quickly at 230 degrees, as it is, for example, in the Just Hatfield Process, and immediately packed in cans and immediately sealed. Hess and Unger report the case of a child suffering from scurvy cured with dried milk, and kept growing and in good health for three months thereafter. Barnes and Hume, on the contrary, consider dried milk greatly inferior to raw milk, and contend that one-half of the original anti-scorbutic power has been lost in drying. Even at best, dried milk is not sufficiently anti-scorbutic to be depended upon, and orange or tomato juice should always be given when the child is put on dried milk feeding.

Hess lays considerable stress on the deleterious effect of oxidation. Dried milk exposed to the air soon loses its potency, but in the absence of oxygen, heating or drying does not seriously affect the anti-scorbutic vitamin. Taylor reported that canned milk prevented and cured scurvy in the war zone, eight ounces of condensed milk being equivalent to twenty ounces of fresh milk daily as a cure for scurvy.

Milk—especially certified milk—should be used at all ages. It acts as a protective food, fortifying the body against deficiency in the vital essentials to growth and development, beside being well balanced in its food elements.

A young child needs at least sixteen ounces, and this should be increased to a quart or more as soon as the child grows a little older. Skimmed milk should never be used for any length of time, and, if it has to be, the fat soluble vitamin should be supplied by giving increasing amounts of cod liver oil. It is well to remember here that the fat soluble A is not present in olive oil or cotton seed oil. Avoid too large an addition of carbohydrate which may supply so much calorie as to render considerable dilution and consequent small intake of vitamin necessary, and rather increase the bulk of the milk at the expense of some of the carbohydrate. Give with the milk from the first weeks of life orange or tomato juice daily. As the child grows older more vitamin should be supplied by vegetable infusions or soups, increasing amount of fruit juices or tomato juice, and, later, egg and green vegetables should be added.

Older children, especially in the pre-school and school ages, should continue to take a quart of milk every day, beside a diet generous in fresh, green vegetables, fruits, eggs and cereal gruels. Young,

Digitized by Google

growing adults, during the active period of physical exercise, should take at least a pint and preferably 24 to 32 ounces. Adults need it to round out their diet in the time of greatest mental energy and strain, and the aged need it to sustain their flagging vitality and to enable them to pass out of life.

Discussion of Dr. Hart's Paper

If we are to conquer the malnutrition which at the present time involves one-third of all the children of this country, we must give very serious consideration to this question of vitamines. McCollum has shown that the pregnant or nursing mother, whether human or lower animal, has very little power of manufacturing vitamines, consequently these essential food substances must be supplied in the diet.

The absence of vitamines in the fodder of cattle in the winter accounts for the seasonal occurrence of rickets in artificially fed children. The same absence of vitamines in the diet of the nursing human mother produces deficiency conditions in her child. The treatment of malnutrition in children quite naturally should begin with prophylaxis. This prophylaxis should begin with the diet of the pregnant mother. It should no longer be considered sufficient to examine the urine and take the blood pressure during pregnancy, but attention to the diet from the standpoint of vitamines should be made an inseparable part of prenatal care.

After the child is born the mother's diet should be supervised as to essential food substances, and when supplementary food is given to the child, it should be sufficient in three ways—namely, in bulk, in calories and in vitamines. Certified raw milk is rich in all vitamines (provided that the cows have had attention paid to the vitamin content of their fodder), and should be accorded a place of first importance.

Hess has shown that ageing of milk is the most important factor in the loss of vitamines, and as certified milk is from 24 to 48 hours fresher than pasteurized milk when it reaches the home, it is the food of choice for artificially fed children, even when the bottle formula is boiled to make it more digestible.

McCollum was able to make a group of undernourished institutional children gain at an astonishing rate by the simple addition of raw milk to the regular diet, which apparently had been a deficiency one. In our treatment of undernourishment in school children we have found that the drinking of raw milk has been the outstanding factor in bringing about a satisfactory gain in weight and in providing energy.

I am heartily in accord with McCollum when he says that milk is an essential part of the diet of the population of this country; that its use should be consistently increased regardless of cost, as nothing can take its place; that the milk consumption of a given community is the direct index of the health of that community with regard to tuberculosis.

In all these statements the milk referred to is raw milk, which is known to us as certified milk, and to the production of which this association and its component commissions are pledged and devoted.

W. H. DONNELLY.

Wage rates for women and minors in Wisconsin are readjusted by a ruling of the State Industrial Commission. After August 1st experienced employes over seventeen years of age will be paid 25 cents an hour in cities of 5,000 population and over, and 22 cents in other parts of the State. For minor employes between 14 and 16 years of age, the rate is 16 cents an hour during the first year and 20 cents the second, instead of a flat rate of 18 cents an hour for all children under sixteen. Minors between 16 and 17 years may be paid 16 cents an hour during the first six months in any industry, and must be paid 20 cents an hour thereafter.

A law recently enacted in Norway requires all persons desiring to marry to procure a physician's certificate showing physical fitness.

The German Superior Council of Hygiene recently recommended that all persons intending to marry secure physicians' certificates, to be obtained only from certain authorized physicians called "marriage advisers." A bill has been introduced into the National Assembly advising physical examinations before marriage.

The Vienna Board of Health has appointed three committees of qualified scientists to draw up definite suggestions as to the issue of health certificates to all persons intending to marry.

Digitized by Google

THE NATURE OF EPILEPSY

By ELIZABETH BALCH-HOLMES, B.S., M.D.,
Woman Physician at Craig Colony,
Sonyea, N. Y.

EPILEPSY is a condition due to defective make-up or pathologi-damage which renders an individual liable to lapses of consciousness (not syncopal attacks) from causes not capable of producing this reaction in normal individuals. In a typical attack the loss of consciousness is accompanied by convulsions, and the convulsion is frequently followed by some mental disturbance of varying duration and by automatic acts. It is often preceded by some sensation that gives the subject a warning of the oncoming seizure, or convulsive movements start before consciousness is lost. In either case the individual has a warning or aura so that he can take precautions against falling or injuring himself. A typical and complete epileptic attack might be outlined as follows:

1. The aura, or warning sensation.
2. Convulsive twitchings of groups of muscles.
3. Epileptic outcry.
4. Loss of consciousness.
5. Generalized convulsions.
6. Automatic acts.
7. Disturbed mentality, as confusion, depression, stupor.
8. Sleep from exhaustion.
9. Return to the normal or usual state of consciousness.

Practically no attack ever includes all of these items, and may consist of one or more without the others. 1. Patients will at times say, "I had the feelings of a seizure coming on without having one." In this case the attack has stopped with the first phase, or aura. 2. The convulsive twitchings of groups of muscles may occur alone. Patients call these "jerks." They are termned myaclonia. Myaclonia occurs chiefly on waking in the morning. Patients may have myaclonia for years before the convulsive attacks begin to occur. Myaclonia is not accompanied by unconsciousness, so to call such an attack a true epileptic attack does not conform strictly to our definition, and the case presenting merely myaclonia could not be definitely called epilepsy until attacks accompanied by unconsciousness occur. 3. The epileptic cry ushers in the convulsive phase, and may occur just before consciousness is lost, but not always. It is due to the convulsive narrowing of the glottis through which air is forced by the fixing of the respiratory muscles in tonic spasm. It is involuntary, though the patient may remember it. I have heard some patients start with a prolonged screaming that sounds like a cry of fright, but questioning these patients indicates it is the same convulsive nature. 4. Unconsciousness may occur alone. This is the typical Petit Mal attack. Or it may be accompanied by slight convulsive movements, but not sufficient to cause the patient to fall. If the convulsive movements are sufficient for the loss of consciousness is profound enough for him to lose his balance, then the attacks are considered Grand Mal. The difference between Petit Mal and Grand Mal attacks is somewhat arbitrary. These attacks grade into each other, and a mild attack which seized a patient in the standing position or when walking about might cause him to fall, but would not be sufficient to do so if he were seated. 5. A typical Grand Mal attack has generalized convulsive movements involving even the respiratory muscles which are held in tonic spasm so long as to prevent oxygenation of the blood, and the patient becomes cyanotic. This feature will differentiate an hysterical seizure or a malingering attack from a true epileptic seizure. However, since milder motor seizures are not accompanied by cyanosis, its absence is not evidence that the attack is other than epilepsy. 6. Automatism may occur alone. Then we get the epileptic equivalents: or, 7. The mental disturbance without the other elements making the psychic attack. These latter conditions have a medico-legal aspect, because in these states the patient may do criminal acts. The activity of an automatic patient often seems directed by a purpose and may appear like responsible acts, but on coming to himself, he has no memory, or a very vague one, of his acts. If one tries to direct him while in this automatic state, it will be found impossible, as his consciousness is withdrawn

Digitized by Google

from externals to a great degree and he appears to act under some inward urge. Most automatic acts are an associated group of motions such as he has been accustomed to perform, as dressing or undressing, walking or running. It is as though a little part of his psychic mechanism had started to act of itself without logical connection with the full psychic life of the individual. These acts follow habits previously developed by consciously directed acts. When this automatic activity involves the higher psychic centers, the individual acts or talks under the compulsion of ideas split off from the general stream of consciousness, and we have the psychic attack or epileptic equivalent.

We know that the infant will have a convulsion ushering in any of the infectious diseases which in a normal adult will produce only a chill. The immature nervous system of infancy reacts to the irritation of the infection in this excessive fashion. It reacts to other irritations, as constipation, indigestion, dentition, in this way, so that infantile convulsions are often set up by these conditions. When the child gets older these irritations cease to produce these convulsive reactions. The epileptic is apparently an individual in whom this infantile hyper-irritability has persisted in some parts of his nervous organism, or in whom pathological damage has caused a return to this condition. The history of infantile convulsions does not seem to occur more often in epileptics than in other persons, nor does the occurrence of convulsions in infancy indicate the probability of epilepsy later.

Doubtless there are many individuals with hyperexcitable nerve centers who do not have epileptic seizures because nothing has happened to them to overstress these weak centers and precipitate seizure life. They are potential epileptics. The fact that many epilepsies developed during camp life or later in army life in the late war indicates that there are probably many of these potential epileptics who get along well enough in civil life, but, under the stress of militarism, succumb. Unfortunately seizure life, having been once precipitated in these individuals, a return to civil life is not always accompanied by a cessation, although of course in some it is. The history of the onset of the first seizure often shows it to have followed some special stress. The first seizure having occurred, it would seem that the weakened centers acquire the habit of reaction to irritations with seizures, and so slighter excitements will produce seizures after this. This fact bears out the theory of the psychanalysists that the seizure is a retreat into unconsciousness from the disagreeable or the painful. The organism, having learned this method of retreat from the disagreeable under some special stress, hereafter repeats it for lesser irritations. Our epileptics here at Craig Colony do not seem to have seizures while enjoying themselves. I have attended the weekly dances of the women patients for nearly four years and have seen but one patient have seizures while dancing. This she did on two occasions but there is some doubt of their genuineness. They may have been hysterical or malingering attacks One of our supervisors who saw this patient in numerous seizures doubts that her epilepsy is genuine. Anyhow it is pretty certain that some of her seizures were mere pretense. There is considerable evidence when an epileptic is busily reacting to his environments and having no time for introspection that attacks are in abeyance. This again tallies with the theory of the psychanalysists that a buried conflict in the subconscious incites the seizure.

There is no doubt that psychic elements are exictants of seizures and may be of most which appear to be causeless. But certainly all are not so incited. Many are evidently due to physical causes—gastro-intestinal irritations are apparently the exciting cause of most seizures. To control constipation will diminish and in a few completely control seizures. Dental irritation, eye-strains are prolific sources of irritation and seizures. I have seen seizures precipitated by various irritations. One patient resisting a gynecological examination went into a Grand Mal seizure. This was probably psychic. Lancing a furuncle in the auricle caused a seizure in another patient. One nine-year-old girl of normal mentality reacted four times with Petit Mal (the only kind she had) during the mental test when questions were too difficult for her.

A study of cases from the standpoint of etiology shows two main groups. By far the larger group are those in whom the epilepsy is inherent, that is, there is a defective make-up or development. The other group, considerably smaller, are the acquired epilepsies. In these a definite pathological factor has caused damage to the nervous system The first or inherent group are classified as Essential or Idio-

Digitized by Google

pathic Epilepsy. Heredith is a factor in Essential Epilepsy. Epilepsy or other mental or nervous diseases occurred in other members of the family, or eccentric or peculiar individuals are more common than in the families of subjects of Organic Epilepsy. The patients themselves, on physical examination, show more stigmata, as torus of the palate, defective auricles, asymmetries, left-handedness, undersized measurements, than those of the organic group. There is also more original mental defect. In both history and physical examination evidence of racial defect is often found in the subjects of Essential Epilepsy.

The organic group, which are fewer in number, usually present good family histories and apparently started life normal in build and mentality. Defect in mental development can more often be traced to a definite pathological incident in childhood that has inhibited development from that time with evidence of normal development before this. Or such mental defect as the individual shows may be entirely due to deterioration. The individual has been normal or even of superior mental endowments. Probably all epileptics deteriorate mentally, but in some it is so slight and slow as to amount to no more than an acceleration of the decrease in mental power that increasing age brings to all. Soon after I took up work in Craig Colony two young girls came to my service. They were the first cases that impressed on me this distinction of organic and essential epilepsy. They also illstrated the characteristic difference between mental deterioration and original mental defect. An outline of these cases follows:

Case No. 4739—Essential Epilepsy. Admitted August 30, 1917; age fifteen (born February, 1902), German-American parentage. Patient born in New York.

Family History—It shows heredity This patient's aunt (father's sister) was insane. There are mental peculiarities on the paternal side. The father himself is quick-tempered and peculiar, has strong likes and dislikes. When he visited his daughter he impressed one of the attendants who saw him as feeble-minded. She resembles her father.

Personal History—She spent ten years in an orphan asylum because her parents quarreled and separated. She attended school from the 10th to the 15th year; was in ungraded classes and progressed only to the fourth grade.

History of the Epilepsy—Onset was at thirteen years with Petit Mal, but now attacks are usually Grand Mal. Aura, a sensation of lump in the stomach. Previous to admission seizures 2 to 3 times a week, and since 4 to 7 times a week; greatest number in twenty-four hours has been five, but usually 1 or 2 in a day. She bites her tongue, urinates during a seizure, is automatic and recovers in anywhere from 3 minutes to 1 hour; convulsions begin in the right arm and leg.

Physical examination shows some defect in physical development. One shoulder drops, due to rotary lateral scoliosis; slight facial asymmetry, high and narrow palate; ear lobules adherent, with left auricle narrower than the right (Blainville ears). Catamenia did not appear until eighteen years and were irregular during the first year. Physical condition showed slight vasomotor and trophic disturbances as slight acro-cyanosis; cold sweating of the palms and soles; reflexes fairly normal. Her height on admission, age 15, 61 inches, weight 90 pounds; at age 18, height 62 inches, weight 104 pounds. Catamenia profuse, four days' duration; sometimes has seizures and is confused during the period and an increase of seizures since puberty.

Mental examination showed original defect, as did her school history. By the Binet-Simon mental test she graded a mental age of 11 years at 15 years. She did well in answering the ninth, tenth and eleventh-year tests, then came to an abrupt stop, being unable to do anything on the twelve-year test. At 18 years of age, by the Yerkes-Bridges Point Scale, she still tests eleven years, and by the *Porteous efficiency tests, eleven years.

This child is quarrelsome, untruthful, kleptomaniac. She will shirk her work if permitted to, but is fairly industrious. She has vocational work in the school, does excellent work rug weaving.

Case No. 4725—Organic Epilepsy. Admitted August 20, 1917; age 14 (born March, 1903); American.

Family History—Negative except two sisters died in infancy.

One sister died at four days of convulsions; the other at ten days—a blue baby. Patient is the second of seven children. The other four are living and normal.

*The Porteous efficiency test consists of tests of the familiar maze puzzle. There is a series of these of varying degrees of difficulty for the individual to trace out. They test one's capacity to look ahead and plan work.

Digitized by Google

Personal History—Development during infancy and early childhood normal; said to have been very bright up to the time of seizures. She reached the seventh grade at thirteen years of age, which is normal school progress.†

This child had a mild attack of measles at five years of age and a severe attack of pertussis at six years. (Pertussis seems to be a cause of epilepsy in a number of cases. In some the relation of the seizures to the illness is close.)

History of the Epilepsy—Onset at ten years; aura a queer feeling in the chest; frequency, every 2 or 3 days and sometimes occurring in series She had 104 in the first five months after admission. After puberty series of seizures accompanied the catamenia. Seizures were much more numerous during the period, and she showed a marked mental upset. She rarely bites her tongue; sometimes she urinates and is automatic after seizures. From single attacks she recovers in from a few minutes to a half hour. Attacks begin on the right side. She is deteriorating.

Physical examination on admission showed a well-nourished, stockily built individual, 58 inches tall; weight, 111 pounds, and no stigmata. There was transient cyanosis of the feet, reflexes fairly normal, the knee jerks exaggerated and plantar not obtained on the right. Puberty occurred at twelve years. Physical development was good and physical condition fair. Catamenia irregular, four days' duration, profuse. During the period she is badly disturbed or stuporous and has many seizures. She lost flesh and strength during the catamenial periods, to improve after they were over and retrograde again at the next one, with a generally downward course.

Mental Examination—At 14 years she passed the Binet-Simon at an eleven-year average. The tests for 8 and 9 years she passed completely, but was dull and slow. She made one error in the test for 10 and 11 years, the twelve-year test half right and the fifteen-year test one-fifth right. The fact that at one point she reached the fifteen-year test at only 14, together with her school history of being bright, suggests that she started to be a superior individual; failure in so many of the earlier tests scattered throughout the different years shows deterioration

†The school history of feeble-minded individuals shows them left back in classes unable to progress beyond the fifth, though an occasional one gets into the sixth grade of public school.

After admission she attended the colony school for about two years. Her failure was rapid, both mentally and physically. Her conduct and behavior were very good at first, but when mental deterioration became marked her behavior was bad and her language profane. During the last year and a half she had several times of prostration with a series of seizures, bringing her to a critical condition, but she recovered. She died December 24, 1920, aged 17¾ years, exhausted after one of these series of seizures. The autopsy* showed an extremely soft brain and corresponded with the clinical diagnosis of the cause of death. There was encephaloporosity, which is sometimes met with in epilepsy. Other findings were: a moderate infiltration of fluid elements from the pulmonary blood vessels into the lung air spaces and considerable inflammation in the lower part of the small intestine.

The history in this second case does not show clearly the damaging incident. It may have been infectious disease of childhood. She had a severe attack of pertussis at six years, though seizures did not begin until four years later. The exaggerated knee jerks and the absent plantar reflex on the right were very slight hints of some central nervous damage. I can only hazard a guess that pertussis or some other infection caused damage that rendered her incapable of meeting the development of puberty, hence the seizures. The rapid deterioration was probably due to the numerous severe seizures. All organic cases do not run so bad a course. It is not impossible that Nature may in some cases more or less repair the damage and ameliorate the condition, but the damage is usually permanent, and improvement not to be looked for. Deterioration is to be expected in an essential epilepsy, with numerous seizures, just as in this case.

One would expect that organic cases might offer the best field for favorable results, but I have not observed that such is the case. There is some evidence that a few cases have been benefited by operation where symptoms point to a definite

*Autopsy about fourteen hours after death.
Prosecutor Dr. H. A. Patterson sums up as follows:
ANATOMICAL DIAGNOSIS—
Encephaloporosity.
Oedema of meninges. Also congestion.
Oedema of the brain. Also congestion. Very soft. Tore apart exposing basal ganglia while being handled. Weight 117. No gross abnormality.
Cystic pineal gland. Also oedematous.
Pulmonary oedema.
Passive congestion of the liver, spleen, kidneys, and of the intestinal tract.
Endometritis and vaginitis.

Digitized by Google

lesion, as a tumor to be removed, but the results usually are disappointing By the time the damage has resulted in the development of seizures it is usually too late to remedy it. It is possible that some of these surgical cases might have been amenable to treatment soon after the injury could the epilepsy have been anticipated, but much of this, of course, is speculation. Of course it would be impossible to determine how far the adequate treatment of injured and diseased tissues has prevented a later incidence of organic epilepsy. No doubt better obstetrics and better prenatal care during infancy will prevent some cases. Congenital syphilis may be the cause of a few, but in these cases the seizures do not seem to be due to syphilitic lesions but to the defective development caused by the organisms' struggle against the syphilitic poison. Therefore, they are not cured by anti-syphilitic treatment, as will epilepsy due to the lesions of acquired syphilis.

Alcohol, either as an acquired habit or as an hereditary factor, is the cause of some cases. Epilepsy due to alcoholic habits is organic epilepsy, and the onset is usually late in life. Many of these cases when they stop drinking will cease to have their "rumfits." Alcoholism in the parents is susceptible of two interpretations. It is known that neurotic and defective individuals generally are more prone to alcoholism and drug addictions than normals. So the occurrence of alcoholism in members of the family may be evidence of defective racial stock. This, of course, is the fact when it is other than the parents that are alcoholic. Alcohol during pregnancy or preceding or at the time of conception may damage the embryo, sperm or germ cell, and thus produce a defective who may become epileptic. These cases are more allied to the organic causes because they are due to prenatal damage, but the practical difficulties in the way of deciding whether the alcohol has been a damaging factor or is an index of defective stock leads us to class these cases as Essential Epilepsy. If we can have a generation of adequate enforcement of the Eighteenth Amendment it will be interesting to see if there is a decrease in the number of congenital defectives that can not be accounted for otherwise. Statistics in New York State show after one year of prohibition a drop of from about 10 to less than 2 percent of insanities due to acute alcoholism, but it will take considerably more than one year to get the effects of greater sobriety in the field of eugenics.

Organic epilepsy then is to be attacked from the standpoint of its cause wherever that is possible; but except for these cases due to acquired syphilis and alcohol, and possibly a few other diseased conditions that may be treated or may be ameliorated by the natural repair processes, or be reached by surgical means, it is quite as baffling to eradicate as essential epilepsy. This is because the seizures are due not to transient pathological lesions, but to conditions of permanent damage. This being the case, the usual treatment will be the same as the treatment for essential epilepsy, which is a defective make-up that cannot be altered. The management, then, in epilepsy deovlves in finding the causes of the seizures and avoiding these if possible.

It has been observed that many epileptics will cease to have seizures for long intervals, and often the reason is not discernable. If they cease to have seizures for two full years, and the condition of the patient otherwise warrants it, we discharge such cases from Craig Colony as recovered. What has occurred, of course, is that the individual has ceased to be an active and has become a potential epileptic. That he is still a potential epileptic is shown by the fact of recurrence in many cases. Of course, some remain free for a considerable number of years or the rest of their lives, so they can reasonably be called recovered. Within the past year two young women came in my allotment for examination after such return. They had been discharged as recovered after over three years' cessation of seizures. Life outside of the Colony brought a return of seizures in each case in about eleven months. Each had found in the Colony life sufficient freedom from such stresses as produce seizures; outside they did not, and seizures returned. In one the occurrence was so infrequent that she did not seek to return until influenza in the fall of 1918 caused a great increase in their number. (Here, then, is an organic cause—influenza—acting on an epileptic constitution to cause a relapse to former severity.)

In managing epileptic cases, then, the first consideration is mental and physical hygiene suited to the individual's needs, and then special drug treatment, if any, is to be considered. Bromides have had their day, and on the whole have been found wanting. So it is with many other seda-

Digitized by Google

tives, the chief of which is chloral. At Craig Colony we still use both chloral and bromide in emergencies where there are series of seizures occurring or for short periods, but we have pretty generally given up their continued use. Our experience is that bromides are not a cure nor of much help in epilepsy, but in some cases are a positive detriment because of the stuporizing effect of their continuous use. Many cases are admitted so saturated with bromides that the drug has to be gradually withdrawn lest a condition of status epilepticus develop. Conditions of status or of severe epileptic series usually yield promptly to chloroform anæsthesia or hyperdermics of morphine-sulphate, and hyocine-hydrobromide. The usual dose is ¼ grain of the morphine and 1-100 of the hyocine. Or atrophine-sulphate may be used instead of hyocine. The latter drugs, besides their sedative effect, are helpful in the pulmonary oedema that occurs in prolonged or frequent epileptic seizures. All of these measures should be preceded by a sufficient evacuation of the bowels; usually an S. S. enema is sufficient. It may be given with a high rectal tube.

The latest addition to the drug treatment of epilepsy has been Luminal, or its sodium salt. We have been using Luminal in doses of 1½ grs. every night. In some an administration on alternate nights, or in ¾ gr. doses, will control or very much reduce the number of seizures. A few cases require more. It promises so far to be a useful drug, but needs a more extended trial. Unfortunately, the present financial conditions have required the cutting down of our appropriations, so our stock of Luminal has been inadequate for satisfactory testing. We find in most cases that it cuts the number of attacks about half with the above doses, and some much more than this. I have noticed that it helps especially the myoclonic attacks, and it seems to decrease the disturbed mental conditions associated with epilepsy—that is, the psychic attack. The general condition of the patient seems to be better, not worse, as in bromide taking, and the benefit seems to last in some cases for days or weeks after the administration has stopped. In one case, however, the abrupt cessation of Luminal administration seems to have precipitated a severe series of seizures which caused the death of the patient. In spite of the favorable action of Luminal I am of the opinion that epilepsy is a condition more than a disease; that it is a condition of defective make-up that will not be cured by drugs. I do not expect to see a specific found for it. Recovery in epilepsy is relative, not absolute, though a few cases give results that practically amount to recovery. The percentage of recoveries in statistics depends largely on the definition we make; on what length of cessation we decide to call recovery. In an individual case, then, you may help to ameliorate his condition perhaps or to help the patient find those conditions of life in which he will become a potential rather than an active epileptic. Though my expectation is thus pessimistic as to the recovery of the individual case, I hope that some day epilepsy will be eliminated from the race. It has been with the race since the dawn of history, and how much longer I do not know. The race has a good deal further to go before it outlives it. Heredity is a factor; therefore, it will be better if epileptics do not marry. But their numbers are not maintained by the offspring of epileptics, but possibly by the descendants of potential cases. It cannot yet be predicted that any given mating will produce epileptics; in fact, we have had cases of epilepsy in both parents without its appearance in the children. It may be that in each of such cases the parental epilepsy was an acquired or organic case, and therefore not hereditary. Nevertheless, there is adequate proof that the disorder is hereditary; the ascendants from whom he has inherited may have had epilepsy or some other nervous defect which develops convulsive phenomena in the descendants. Cessation of inebriety (alcoholism or drug addiction), control of infections, better treatment of injuries and diseases that produce organic forms, better prenatal care, better obstetrics, better eugenics will all help to eradicate defectiveness and with it epilepsy from the race.

Psoriasis Cured by Pilocarpin.—Lowenstein (Dermatologische Wochenschrift, 1920, No. 1).

Lowenstein reports the case of vesicular psoriasis in a man 50 years old, which was cured by seven intramuscular injections of chlorhydrate of pilocarpine. The first injection was 5 mg., the last six were 10 mg., given at from three to five-day intervals.

Digitized by Google

PRELIMINARY REPORT OF WARD TREATMENT OF GONORRHEA IN THE FEMALE*

By EMILY DUNNING BARRINGER, M.D., F.A.C.S.,
New York City

THE gonorrheal service of the Riverside Hospital, which has been temporarily transferred to the Kingston Avenue Hospital, Flatbush, is under the New York Board of Health, and is in a position to take gonorrhea in all of its stages, and give the patient the benefit of consistent routine treatment.

It may be of interest to mention that this venereal department has been founded as a result of the Federal and State appropriations for the study of venereal diseases, and that Dr. William H. Park asked for a special appropriation out of the State fund for the purpose of studying the bacteriological side of these cases, hoping thereby to match up the smear, cultural and serological diagnosis with the court findings. This part of the work is under the supervision of Dr. Park and Miss Minnie Wilson.

The court findings refer to the provisions made by the New York Board of Health, that women convicted on the charge of prostitution shall submit to an examination by a duly appointed Board of Health physician, or a private physician approved by the Board of Health to make such an examination. All of these provisions are in accordance with the regulations of the Department of Health covering the examinations, treatment, and isolation of persons affected with venereal diseases, chapter 264, laws of 1918. This is one way in which persons are admitted to the service.

A second source is from the workhouse, where women under sentence are found to be suffering from gonorrhea, and are referred to our service for treatment.

A third source is the voluntary patient who seeks ward treatment, having been informed that she is suffering from gonorrhea. The first two furnish by far the greater number of cases, but there is an interesting minority of cases who apply voluntarily to the hospital for treatment.

Any case entering is supposed to have had a definite diagnosis of gonorrhea made, which has been verified by a bacteriological examination. However, in a small percentage of cases, patients are sent in who have been arrested on a charge of prostitution, and are found to be suffering from a purulent vaginitis, presumably gonorrheal, but in which the organism has not been isolated.

After admission, each woman has a careful history taken in reference to the length of the infection, its severity, etc., and her blood is taken for the complement fixation test, and smears of the urethal and cervical secretions are examined. Following is the method used in obtaining the specimens:

Patient is placed on the table in the lithotomy position, the vulva separated and carefully dried with sterile sponge; operator using sterile gloves, inserts finger in vagina, and gently presses urethra toward meatus. Any pus exuding is obtained with sterile platinum loop. Skene's glands are then expressed, and if secretion is obtained, this is transferred to slide or culture media. Vaginal secretion is ignored as routine. Cervix, speculum introduced, and cervix and vagina wiped dry with sterile cotton. Sterile platinum loop is then inserted into the cervical canal, and material obtained transferred to smear or culture.

The culture media which has given the best results, and which is being used at present, is 5 percent glycerine, veal agar plus horse serum.

In those cases where it has not been possible to isolate the gonococcus, various provocative measures have been tried. For a time provocative vaccine was used, but the results from this were not sufficiently encouraging to warrant its further use, and recently we have been using a few drops of silver nitrate, 2-10 percent, into the urethra. This as a rule stirs up a mild urethritis, and after fifteen to eighteen hours the discharge is examined, and in some of these cases the gonococcus has been formed in a discharge previously negative.

As to the reliability and value of the complement fixation test, we are not prepared at this date to give a detailed report. Miss Wilson has a large number of observations under consideration, and will later report her statistics.†

At present we consider that a negative complement fixation means nothing. We

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, March 23, 1920.
Reprinted by request from New York Medical Journal.

†Miss Wilson and Dr. J. D. Smith have since published a report in the Journal of Immunology, Vol. V, No. 6, November, 1920.

Digitized by Google

find a large percent of positive complement fixations among our chronic cases, and a large percent of these become negative during the period of enforced treatment.

As to the clinical evidence of gonorrhea, when the serological and bacteriological proofs are absent: Further study and observation of these cases will be needed before any final opinion is expressed. At present we consider, if there is evidence of a chronic inflammation of Skene's glands, as evidenced by a drop of pus on expression, and also if the Bartholin glands are found to be involved, that we are justified in making a clinical diagnosis of gonorrhea, irrespective of the condition of the uterus and tubes. Without the evidence of the Skene and Bartholin glands, and even in the presence of a chronic urethris and salpingitis, with history suggestive of infection, we are not willing at this date to consider this sufficient for a clinical diagnosis of gonorrhea.

While it is not the purpose of this paper to go into the vastly important sociological problems connected with such a service, but to limit this discussion to the purely gynecological side of the subject, nevertheless, in passing, it seems appropriate to mention of how great importance it is to make as accurate a diagnosis as possible in justice to these women. While they are not officially prisoners, they are officially detained by the city until cured, and there is a record on file as to whether or not they have had gonorrhea.

There is one class of cases that is commanding our further study, that of the possible late uncured case of childhood gonorrheal vulvo-vaginitis. We all know the large number of female children that are infected with gonorrhea in our crowded city tenements, and how the scourge sweeps through hospital wards and asylums. Kelly, in his article on this subject, quoting Dr. Flora Pollock, states that in a series of 1,366 cases 139, or 10 and 21 percent, were children under 15 years. The majority of these children are treated during the acute symptoms. Are they cured? What becomes of them in the community, and what picture may they present, which may obscure the true sizing-up of a case when years later they may be accused of prostitution, and possibly have this stigma added to an already most unfortunate childhood history?

The following is a case in point: A. M., 18, partially blind, having had an ophthalmia neonatorum, was referred to us as a voluntary patient from another institution, as a clinical case of gonorrhea. She had been examined by a young hospital interne, who promptly stated that she had a ruptured hymen, had contracted gonorrhea, and that there was a question of pregnancy. When examined, she was found to be very sensitive, and the vaginal orifice, while admitting one finger freely, was not different from many cases of undoubted virginal condition. She had a profuse purulent discharge which was negative by smears and culture for gonococcus. Her complement fixation was negative, and pregnancy was excluded. Going back over her history, we found that she had had a leucorrhea as long as she could remember, shortly after birth, she believed, and that it had never been cured. She had been in institutions a large part of her girlhood. When questioned in regard to the charge made against her, she stoutly denied this on several occasions after a most searching examination, and she was convincing. Further bacteriological study of the discharges showed that after forty-eight hours' incubation, the growth on the culture media consisted of—

Gram positive bacillus (bacillus subtilis);

Gram positive cocci (staphylococcus aureus and albus);

Gram negative bacillus (bacillus coli).

Our final estimate of this case was that she was probably a late manifestation of a childhood gonorrheal vulvo-vaginitis, and this was placed on her record, thereby removing the stigma.

When smears and cultures are taken, a tentative clinical diagnosis is sent to the pathologist, as to whether the case is acute, subacute, or chronic, the pathologist having on hand a description of the symptoms we, as nearly as possible, have tried to group under these headings. We are hoping in this way to get some bacteriological findings which we may gradually consider acute, subacute, and chronic. At present we have no special relation established.

Clinically, the findings considered especially important are the vulva, whether acutely inflamed or not, Skene's and Bartholin's glands, the cervix and tubes. A high percentage of Bartholin's and Skene's glands are found to be infected.

In estimating the degree of perimetritis in cases where the infection travels up through the uterus, and out into the Fallopian tubes, the loss of normal mobility of the uterus has become a finding which we consider of value. Also the degree of pain

Digitized by Google

elicited by this examination, for the loss of mobility, has become a fairly valuable gauge as to whether the case is acute, subacute or chronic.

We have had a number of cases under observation where these two findings tally fairly accurately with the temperature curve, leucocyte count, smear or culture. It has been interesting to note how all of these may improve together under treatment, and then there may be a relapse, when there will be a flare-up of temperature, leucocytosis, increase of local sensitiveness, and loss of mobility.

Bladder symptoms have to date been conspicuous by their absence. It is a most unusual thing to have a complaint of painful urination. These cases seem to be peculiarly tolerant of urethritis, and even the provocative treatment mentioned,above has apparently caused no undue suffering.

Equally surprising has been the absence of ectopic gestation. On this service, where in almost every case one or both tubes are involved, one would expect that extra-uterine pregnancy would be found, if pregnancy were to be found at all. On the contrary, intra-uterine pregnancy prevails, and in a fairly good percentage of cases. Looking over the record, I find that in 139 consecutive cases, there was not one extra-uterine pregnancy, but eight intra-uterine.

Treatment.—In the acute cases the patient is kept in bed, with light diet and free catharsis. If the vulvitis is very severe, the vulva is irrigated frequently with a mild antiseptic solution, and no douching attempted until some of the œdema has subsided. As soon as is possible, douching is started. This is given in bed twice or three times a day, with little pressure, and every effort is made to keep the infection from traveling up into the uterus.

Subacute and chronic cases get routine douches twice daily of potassium permanganate, 1-6000 at a temperature of about 112 degrees, and about a gallon at each douching.

The introduction of the douche table as devised by Dr. Cable has simplified and added much to the efficiency of the douche. For the benefit of those unfamiliar with this, I will briefly state that the table is a white enameled iron examining table, stationary, with a small square drainage box in the lower portion of the table, this drainage box connecting with the waste pipe. Above the table, with hot and cold water connections, is a twenty-gallon tank, with an outlet tube running down to the upper edge of the drainage box. The tank is fitted up with a thermometer and gauge, so that the amount and temperature of the water can easily be read. The patient lies on the table in the lithotomy position with her buttocks protruding over the drainage box. A sterile glass douche tip is attached to the tube at the edge of the drainage box, and the patient inserts the douche tip herself, and holds it in place for about three minutes, during which time she gets about one gallon of irrigation. After this irrigation the speculum is introduced by the physician, and the cervix and vault of the vagina swabbed out with 25 percent argyrol, and any other special treatment given.

We have in use three such tables, and two supply tanks, each table being connected with both tanks. These three tables can be using one tank at a time, while the other tank is being filled. The practical advantages are cleanliness, control of temperature and pressure, and an enormous saving of time for doctors and nurses. In two hours' time 50 to 60 such douches and treatments can be given. Wherever pus has been found in the urethra or Skeene's glands, instillation of argyrol is made into the urethra.

Special precautions are taken with pregnant cases, that the douche is not given under too great pressure. In the later months of pregnancy this douching is often done in bed. These pregnant cases are kept on this service under active treatment until the patient goes into labor, and then transferred to the maternity service. Of the cases thus treated, several of which were very virulent, the outcome has been most satisfactory, without complication to mother or babe.

Wherever Skene's or Bartholin's glands are found to be infected, every effort is made to clear up the focus. A case with persistent discharge is kept under treatment until such discharge is negative by smear and culture for gonococcus, and, if possible, the treatment is continued until the discharge has disappeared. Because of their accessibility and proneness to chronic infection, we are now advising the routine excision of all infected Bartholin's glands that do not yield promptly to treatment. Cases of endometritis, salpingitis, and perimetritis which do not yield to the above treatment are subjected to operation.

Some of the special problems to be considered in such a service are:

Digitized by Google

How long should expectant treatment be persisted in? Ordinarily a month's treatment is the minimum given. A patient often receives two or more months' treatment if progress is being made.

In a case that does not yield to expectant treatment, and in which symptoms remain stationary, or grow worse, operation is advised. The symptoms which are especially considered in making this decision are persistent or recurring temperature, increase of local inflammatory findings and pain.

Bearing in mind that a high percentage of tube involvement subsides spontaneously with rest and expectant care, we have offered operation only to those cases which seem intractable after careful observation and treatment. Three questions are to be considered in each case:

1. The individual equation. Is it best for the woman at this date to submit to an operation which may sterilize her, or may she still be cured non-operatively? We especially try to avoid operation in young first offenders.

2. As these women are sociologically a menace in the community, the question has to be considered whether operation will render them less dangerous by removing chronic sources of infection.

3. The economic question has to be considered: How long are we justified in prolonging treatment which would be hastened by operation?

The main interest of the service centers around question No. 2.

Where are the chronic foci which contain the latent gonococci?

Which foci remain infectious the longest?

If we can prove that the gonococci die earlier in pus tubes and abscesses of ovaries than in the cervix, Skene's and Bartholin's glands, then many a laparotomy will be contra-indicated. We have a series of such cases under study at the present time, and I quote the following case to illustrate my point:

P. R., admitted to the ward early in December, with a fairly acute set of symptoms, history about two months before admission. She had a profuse purulent discharge from the cervix, with positive smears and culture for gonococcus. She ran a fairly sharp fever at first, 101-102; and the left tube and ovary became involved. She had expectant treatment in bed for a number of weeks, during which time the mass involving the left adnexa subsided considerably. She would have recurrences of temperature, pain, and the gonococcus persisted in the cervical smear. I finally advised laparotomy, having in mind that she probably had pyosalpinx, in which active gonococci would be found. At operation, however, I removed a pyosalpinx and abscess of left ovary, and most careful smear and culture proved the pus from both of these sterile. In this case the cervix was a far more dangerous focus of infection than the tubes.

Present requirements for release from the hospital:

No patient comes up for a final examination until she has had one month's treatment. She then must have two negative smears, taken one week apart, one immediately following a menstrual period. Smears are taken from urethra and cervix. The finding of 90 percent or more pus cells without the gonococcus or other organism, is considered presumptively a positive smear, and the patient is retained under active treatment until this percentage is reduced. At the present time we do not require a negative complement fixation, but the majority of cases ready for discharge have one.

The question comes up, What percentage of these cases are cured? Do we discharge any who may be a public menace? It would seem that only by working along the above lines, in close affiliation with the pathologist, that these questions can be answered more accurately.

In closing, I wish to express my appreciation of the cordial co-operation of Dr. Park and Miss Wilson, in working out these problems, and suggesting new lines of investigation; and I further wish to thank Dr. J. D. Smith, resident house surgeon, for his careful bedside observations, and his assistance in preparing this report.

A bill passed by the California Legislature provides vocational education for wives, dependent parents, children and brothers and sisters of men killed in action or who have died as a result of wounds received in active service, and of men permanently disabled by such service. Money derived from the sale of tax delinquent property is to be used to defray the expenses of the scheme. The amount expended on any one applicant is not to exceed $1,000.

Digitized by Google

ABSTRACTS

The Relationship of Internal Secretions to Skin Diseases and the Treatment of Psoriasis by Radiation of the Thymus.— Brock (Strahlentherapie, Sept. 15, 1920.)

In Addison's disease—that is, insufficiency of the suprarenals—there is pigmentation and bronzing of the skin, with a diffuse falling out of hair. In myxedema, or insufficient thyroid secretion, the skin is soft and doughy, pasty, dry; the nails are brittle; the teeth are badly developed; there is lack of sweating; and the hair falls out and becomes prematurely gray. In hyperthyroidism, the skin is thin, smooth and moist; there is a tendency to edemas and to acchymoses from slight injuries or spontaneously. The hair is dry, very brittle, turns gray prematurely or falls out, especially over the temples and vertex, and may present such a characteristic appearance that the diagnosis of hyperthyroidism is at once suggested. The contrast is striking—lack of thyroid makes the skin thick, dry and rough; excess of thyroid makes the skin thin, smooth and moist.

Scleroderma is thought to be caused by a dysthyroidism developing upon an arterio-sclerotic basis. The coincident changes in the pituitary are thought to be compensatory. Because scleroderma usually begins during the menopause, other disturbances of internal secretions are inferred. Luithlen insists that in cases of scleroderma the menopause is always early. The improvement and recovery in cases of exophthalmic goiter following radiation of the ovaries illustrates the restoration of the upset endocrine balance. The long eyelashes so typical of tuberculosis cases are said to be caused by the specific disease of the mesenteric lymph nodes.

In parathyroid insufficiency the hair falls out, there is pigmentation and trophic disturbances of the nails and ciliary epithelium. In severe cases there are changes in the dentin and chronic ulcerations of the skin.

In acromegaly or hpyer-activity of the anterior pituitary, the skin is thick, pigmented, and board-like. The growth of hair is profuse and the teeth are spaced. In dystrophia-adiposo-genitalis the skin is padded; there is no sweating; there is little hair, and the whole body is imperfectly developed.

The whole complex of secondary sex characteristics is induced by the activities of the sex glands. When the sex glands function abnormally, the sebaceous glands may be abnormally developed, as in the acne of puberty. As a rule, these cases are anemic and lacking in vigor, and the abnormal secretion from the sebaceous glands seems to offer a favorable culture media for chronic pus-producing bacteria. The same conditions prevail in seborrheic eczema, which is a complex of chlorosis and a dysplasia causing a fatty deterioration of the skin. The menopause, when the sex glands fail, is rich in skin disorders. There is the accumulation of subcutaneous fat, the menstrual exanthemata, chloasma uterinum, hypertrichosis gravidarum, dermatitis symmetrica dysmenorrhoica, etc., which are all intimately associated with ovarian functions. When the testicles begin to close their activities there may be pigmentation of the skin and atrophy over the back of the hands and over the face. Before the sex glands begin to function, various fungi attack the skin, but never after puberty. Xeroderma pigmentosum and all the xanthomata are caused by overactivity of the lutein, lipoid producing cells.

When the thymus persists and is overactive, the skin is delicate and pale, and the distribution of hair is sometimes of a hetero-sexual nature. Of insufficiency of the thymus, we know nothing. Hammar and Hart have morphologically demonstrated that the thymus is not only concerned in growth and development up to puberty; that there is an active regeneration of lymphocytes and Hassall's corpuscles up to old age, which shows that the gland must be functionally active. Its parenchymal value is said to be 6 grams in the decade 65-75.

Acting upon the hypothesis that psoriasis was due to lack of functional efficiency of the thymus, Brock stimulated it by X-rays, carefully shielding the thyroid and parathyroids and using very weak doses. Aside from the mistakes made by using too strong doses, the results were remarkably good. In hyperactivity of the thymus, in status thymicus, psoriasis never occurs. In pregnancy and during lactation, psoriasis is apt to occur, which heals as soon as this overactivity of the reproductive organs ceases and the thymus is no longer antagonized. Psoriasis is also apt to occur at puberty when this reproductive antagonism is again pronounced. Brock is confident that psoriasis develops because there is not enough stimuli from the thymus. If the thymus is stimulated by mild doses

Digitized by Google

of X-Rays, the psoriasis is cured. If it is paralyzed by too large doses of X-rays, the psoriasis becomes worse. The thymus of children is much more sensitive to X-ray than that of adults, and demands smaller dosage.

Hypertension, the Ophthalmologist and the Menopause.—P. H. Adams (British Journal of Ophthalmology, July, 1920).

In a paper, entitled "Arterio-Sclerosis and the Eye," the author says:

"First, we see that there are many symptoms of hypertension which are liable to be confused with those caused by eye strain.

"Secondly, all the medical authorities whom I have consulted agree that the most important consideration as regards the prognosis and treatment of the hypertensive condition is its early recognition.

Thirdly, we, as ophthalmic surgeons, see an enormous number of patients between the ages of 40 and 55, the common age of its occurrence, for the purpose of ordering presbyopic glasses. Thus, a heavy responsibility is ours if, in the ordinary routine examination of presbyopic subjects, we miss a case of hypertension and are content to order a pair of reading spectacles, without going further into the case when the symptoms are suspicious and the eyes insufficient to account for them.

"The next point to consider is the symptoms that such patients complain of. Williamson gives the following, which I have arranged in two groups:

"(1) Heaviness or fulness of the head, drowsiness, insomnia and fatigue, especially in the morning. Inability to concentrate, despondency, giddiness, noises in the ears, migraine, neuralgia and nervousness.

"(2) Local syncope of the extremities, rheumatic pains or cramps in the limbs, tendency to hemorrhage, hemoplysis or epistaxis, dyspnœa on exertion and intermittent polyuria.

"Headaches on waking in the morning or that even wake them up in the night, but pass off after a cup of tea and getting up, are, I believe, never caused by the eyes, and always raise a suspicion of high blood pressure in my mind. At the same time it is not an unusual complaint of women at the menopause. Pain at the back of the neck again may be caused by errors of muscle balance, particularly exophoria, but this is more so in young subjects, and, when occurring for the first time in middle age, is, I believe, a symptom suggestive of raised pressure. In patients with migraine who have their first attacks somewhere about the age of 50, with tendency to frequent repetition, I believe the trouble often lies in heightened blood pressure.

"Those cases of giddiness which come on, on change of position, such as getting up after sitting in an easy chair for some time or getting out of bed in the morning, seem obviously due to circulatory disturbance, and yet I have had many people sent to me to have their eyes tested for glasses on account of giddiness."

Since "as ophthalmic surgeons we see an enormous number of patients between the ages of 40 and 55, the common age for the occurrence of hypertension, who come for presbyopic glasses," would it not be well to associate this hypertension with the events characteristic of this period, especially with women? The menopause and hypertension are synonymous terms in many cases—why? Why are these years—40 to 55—and the menopause and hypertension so constantly associated? For two reasons: First, there are two glands of internal secretions which are influential in keeping down blood pressure, and which begin to fail in their function at this age. These two glands are the ovaries and the anterior pituitary. The second reason for hyptension is the undue influence assumed by adrenalin at the menopause.

The cessation of menstruation is a final effect. It is not the chief characteristic of this age, although the most generally recognized one. The real, fundamental changes to which the woman has to adapt her life are those mentioned above. The heaviness or fulness of the head, the fatigue, especially in the morning, the drowsiness, inability to concentrate, despondency, dyspnœa on exertion and intermittent polyuria are all well recognized signs of pituitary insufficiency, often associated with thyroid. The insomnia, rheumatic pains or cramps in the limbs, the neuralgias, migraines, nervousness and the tendencies to hemorrhages as manifestations of vicarious menstruation, all occur as typically after removal of the ovaries as they do at the menopause; also the vasomotor changes, the giddiness, noises in the ears, as well as the "hot flashes" and sweatings.

It will be well worth while to try to combat the common condition of hypertension which develops before any recognized sign of the approaching menopause ap-

Digitized by Google

pears, and is so closely associated with the failure of pituitary and ovarian and sometimes of thyroid functions, by the use of extracts of these glands. The attempt to combat the consequences of their loss is well worth making. To remedy the second factor in hypertension the undue influence of adrenalin demands a knowledge of what stimulates the suprarenals, of what stimulates the chromaffin and the cortical functions, for both are prominent in the production of arteriosclerosis and atheroma. It is just at this period that we find the metabolic changes becoming established, which may some day lead to the metabolic diseases we call diabetes, arthritis, adipositus, edemas and skin diseases such as psoriasis, pruritus, acne, angio neurotic edemas, sclerodermas, etc. This hypertension may establish cardiac and nephitic diseases from strain, from too much force of adrenalin. The cortex institutes in some cases another set of lipoid disturbances. There is too much cholesterin; you see it in the lemon-colored skin, in the faint suggestions of jaundice, in the biliary congestions, the biliary lithiasis, chole-lithiasis, attacks of recurrent jaundice, etc. In extreme cholesterinemia, xanthoma appear, often beginning in the eye. This should clearly suggest to the ophthalmologist that there is too much cholesterin in the blood, and that its excretion should be favored and intake reduced. Food rich in cholesterin should be avoided and that which is cholesterin-poor chosen.

Summary: When the ophthalmologist finds that "the ophthalmoscope is, in many ways, a more accurate instrument than the manometer, and certainly will give more information as to the exact condition of the smaller blood vessels," and establishes the existence of too much blood pressure, then he should also know that the association of this pressure with the menopause establishes a condition quite different as a therapeutic problem from the conditions inducing degenerative changes in the arterial system. It is not always "the man who works hard, drinks hard and smokes hard, particularly the keen business man with many responsibilities" to whom the slowly rising manometer points out danger; only too often the warning is wirtten, but not read to the frail or quiet or sheltered woman. The warning that she will some day sit in suffering patience with arthritis deformans or gout, or that the glycosuric or biliary or cardiac or nephritic diathesis may have its inception when the diagnosis, hypertension of the menopause, is made. Ophthalmologists recognizing this association will believe that the patient is approaching the age when endocrine disorders furnish the basis for their characteristic diatheses, and will appreciate the significance of the facts revealed by the ophthalmoscope.

A SPRING SONG.*

By CLELIA DUEL MOSHER, M.D.,
Stanford University, California

PETER, the coal black Thomas cat, softly and silently walked across the brown lawn in that neglected garden; following him was Mrs. Thomas, equally lean and equally black; and in their wake at equal distances apart came five small black kittens. They arranged themselves comfortably and deliberatly along the grape arbor in the pale winter sunshine, but when the khaki clad owner of the garden rubbed her eyes and they became aware of a stranger presence, there were seven black streaks and vacancy.

It was some time before I really recognized Peter, and then, by chance, out of the dim and distant past before the war, in those halcyon days when a dollar bought a dollar's worth of food, and service was not the exclusive perquisite of the multimillionaire, I remembered that I had had a housekeeper, and that she had taken a forlorn black kitten and made of him a pet. So I tried the name Peter, which, for some mysterious reason, had stuck in my memory, and that lean black shadow stayed his flight and answered, but would not return.

As time passed and the neighborhood garbage cans supplied so lean a living that the milk and cream from my frugal breakfast and the fact that his presence did not mean a boot or something equally offensive flung in his direction, had in a measure restored the timid Peter's confidence, I occasionally had a response to my greetings. In time he would come eagerly for his breakfast, and as I poured out the milk he would tell me how hungry he was and even let me rub his back and would twist and turn as he ate. Sometimes this warmhearted old cat would interrupt his drinking and look up at me and speak, hungry as he was; but let me make a quick motion, and he would be on the other side of the garden before the assurance of my

*Copyright by Clelia Duel Mosher, 1920.

Digitized by Google

voice could arrest his flight. He had grown into a great, strong black Tom with bristling fur, a big neck, and was a fine specimen of the fighting male. No wonder that at first I had failed to recognize any relation to the puny half-starved kitten of prewar days. I came to have a very friendly feeling for old Peter, who was often my companion as I worked among the fruit and flowers. We had many a conversation, but usually the timid cat kept at respectful distance. To be sure our interchange of thought and friendly gossip closely resembled those one so often saw and heard on the other side of the sea, between two who spoke no common tongue—a matter of intonation rather than more formal speech.

Mrs. Thomas was black also, silky and a beauty. Her figure had rounded out with the quiet and good food, but she was just as shy as ever, and always my coming meant flight.

The five handsome black kittens disappeared, driven out by their parents to fend for themselves, as in all well regulated families when the young are able to make their own way. They readily found good homes I judged, for I saw two of them with their tails wrapped round them sitting up at a house down the block with the unmistakable air of owning the place. Mr. and Mrs. Peter continued to live in the garden.

The seasons changed; a second winter came and went. The daffodils put up their golden trumpets to announce the spring, and when the almond trees were white with bloom and the golden sun poured down from a cloudless blue sky, rousing sleeping nature to new life, the spring madness seized Peter along with others of his kind. Poor Peter, the faithful head of his family, domestic to the last degree, met the frequent fate of the male with a handsome frivolous wife, for alas! his mate had other admirers. No Freudian repressions hindered her progress along the primrose path of the full expression of her ego. She continued to live in the garden entertaining her guests, a young striped maltese male who was more or less of a beauty, and an equally handsome Thomas of tawny brown and yellow. So Peter grew thinner and thinner and ate more and more sparingly of the creamy milk. Night and day he alternately sung his love song to his mate, and poured out defiance to his rivals, in the intervals wailing his grief and despair.

One morning, as he came around the corner of the chicken house after breakfast, licking the cream from his fierce black whiskers, he spied Mrs. Peter on the fence rail seven feet above. Head on one side, with lazy indifference, his silky black mate looked down at his woe, and just behind her on the four inch rail her gray companion impertinently regarded the melancholy Peter. With a cry of joy and longing, followed by a shout of rage and defiance, Peter sprang with one long leap to the top of the chicken house, slowly worked his way through the tangled rose vines, and followed his mate and her gray admirer as they fled, uttering cries of derision and defiance. Poor, simple, warm hearted black Peter, driven by the spring madness, trying to live up to his physical embodiment and the traditions of the fighting male, did not overtake them.

Soon Mrs. Peter, having had her fling, came home once more, but on that very day, the undiscriminating neighbor with a gun, who found the spring song disturbing, cut short Peter's woe.

Day after day, under the shadow of the blackberry vines, the widow Peter Thomas, a sadder if not a wiser cat, sat and watched and waited for her faithful and gentle mate. Two months later she gave birth to six camouflage kittens, poor little Ishmaels of cat land, early turned out to face an unsympathetic world, the victims of the martyrdom of life and freedom, translated into the promiscuity of the male by the female of the species.

A school lunch bill, recently enacted by the Legislature, provides for the serving of school lunches in the schools of any city of the first class in the State, when, in the judgment of the commissioners, it would tend to promote the health of the children and thereby advance the educational work of the schools.

Health Special. The Child Welfare Association of Montreal is at present engaged in mapping out an itinerary in the Province of Quebec for a far-reaching health train demonstration. A complete and competent medical, nursing and executive staff will be carried on the tour.

The granting of meals in case of necessity to nursing and expectant mothers and to young children is recommended in a resolution adopted by the Glasgow Town Council.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

THE SUBJECT OF VITAMINES.

"Live and learn." One of the happy experiences that come with added years is the answer through scientific research to questions which we have long been asking.

Comparatively little has as yet been done to develop our knowledge of vitamines, and yet the facts already established explain many things we knew to be true clinically, but for which we could give no scientific reason.

Take the subject of milk, for instance. We have long known that children fail to develop well on skimmed milk, but we did not know that butter fat contains a vitamine which presides over the calcification of bones, the development and arrangement of the teeth, etc.

We found also that children fed on cows' milk alone, especially pasteurized milk, are subject to scurvy-like affections of the skin if neither fruit juices or vegetable purées are given in suitable amounts.

We were not aware, however, that at best, milk is lacking in the anticorbutic vitamine demanded by the growing child, and that this precious vitamin exists in large amount in certain fruits and vegetables, hence their importance in the child's dietary.

It has also been found that certified milk loses some of its vitamines after 36 or 48 hours; and since its age is not made evident by its turning sour, it is likely to be used when too old to be healthful.

We have advised our patients to change their dairyman when their children were not thriving as they should. We did not know that cows are unable t secrete vitamines, but are dependent on certain foods which scientists now say must be furnished them if their milk is to contain the vitamines so important to the growth and normal development of children. By changing the source of milk supply, there was a probability that they might receive milk from a better fed herd.

The milk of some mothers, while rich in protein, has been found not to properly nourish their babies. We did not know that insufficient vitamin content in the food they habitually ate was possibly responsible for this defect in their breast milk.

Vitamines are elusive. We are not yet able to formulate their chemical constituents. We have discovered their sources—many of them at least—and have learned how to supply them both to infants and adults.

The opening up of this vein of knowledge makes us impatient for the time to come when many other clinical observations will be scientifically explained.

E. M. M.

IMPORTANT!

Headquarters for Meeting in St. Louis

The Statler Hotel has been secured as headquarters for the Medical Women's National Association for the seventh annual meeting to be held May 22d and 23d. A tentative reservation of a limited number of rooms has been made, but names will have to be supplied early, for these rooms will be in great demand and can not be held indefinitely. Rates given are $3.50 per person, two in room (two beds) and bath. If you wish me to make reservation, please specify if you expect to remain throughout the period of the A. M. A. meeting immediately following; also designate your room-mate if possible, so that room may be reserved in your names, so as not to make Association responsible. It is advisable to make reservation now, and if you find it impossible later on to

Digitized by Google

occupy these rooms, cancel them so that they may be released for some one else.

L. ROSA H. GANTT,
Record'g Sec'y-Treas., Spartanburg, S. C.

[The above should be given immediate attention by any medical woman desiring to attend the St. Louis meeting, so as to avoid confusion and disappointment later. It is far better to make the early reservation—and should events prevent your attendance, cancel such reservations — than not to be able to select rooms when desired—Editor.]

Outline of Work of the Pathologist to the New Hampshire State Board of Health

At the request of Dr. Eliza Mosher, Editor of the "Medical Woman's Journal," official organ of the Medical Women's National Association, I am submitting an outline of my work as Pathologist to the New Hampshire State Board of Health, the object being to show what women in medicine are doing, who are on State Boards of Health.

The work is all diagnostic, and includes (1) the general bacteriological diagnosis as well as any special bacteriological investigations of specimens submitted by physicians, autogenous vaccines of various diseases, etc., (2) serum diagnosis of syphilis and gonorrhœa, (3) histo-pathological diagnosis of various tissues and organs submitted by physicians for cancer and other diseases, and (4) animal pathology, which includes bacteriological and histopathological diagnosis, including animal inoculations.

Besides the above, it is my duty to do postmortem examinations in medico-legal cases in any part of the State that I am called to go. I also go on the witness stand for the State when called upon to do so.

CLARA ISRAELI, M.D.,
Pathologist-in-Chief.

Safeguarding Child Workers

How one State has developed unique methods of protecting her youngest wage-earners is shown in a report just issued by the U. S. Department of Labor through the Children's Bureau, describing the employment-certificate system in Wisconsin. This report is the fourth of a series dealing with the administration of child-labor laws, previous reports having summarized methods of administration in Connecticut, Maryland and New York.

In Wisconsin the State Industrial Commission has control over both the issuance of employment certificates and the inspection of industrial establishments. It has general supervision over the officers granting working permits, and also has sole authority to appoint these officers. This centralized authority is strengthened by the commission's power to interpret legislation through its own rules and regulations, which are legally binding. Moreover, the commission's work of protecting children from illegal employment is made more effective by its power to bring civil action, instead of only criminal, for nearly all child-labor violations; the employer may thus be made to testify and to produce his records.

Children between 14 and 17 years of age must secure permits before they can enter industrial employment, and are afforded special protection in their work. This is a higher age than that prevailing in most States. All important cities and towns in the State maintain vocational schools at which part-time attendance of all employed children between 14 and 17 years of age is compulsory. The industrial commission is represented on the Board for Vocational Education. The apprentice laws, requiring in connection with shop experience a certain amount of formal instruction, together with the vocational school system, give Wisconsin a unique opportunity for leadership in the vocational training movement. In spite of its many advantages, the Wisconsin law has several weak points, the most serious being that physical examinations of children entering industry are not required; however, such examinations are now made mandatory in the largest city—Milwaukee—by order of the Industrial Commission.

The possibility of a child's working without a permit is reduced to a minimum by an exceptional provision of the workmen's compensation law. If a child of permit age is injured while working without a permit, or in a prohibited occupation, his employer must pay three times the compensation ordinarily required, and he can not protect himself from this additional risk through insurance. The fear of this clause and the operation of the minimum wage law have resulted, the Industrial Commission reports, in a decrease in the number of employed children. The number of employed children is likely to be decreased still further through the operation of laws passed at the 1921 session of the Legislature.

Digitized by Google

The Major Symptoms of Hysteria. By Pierre Janet, Ph.D., M.D. Macmillan, 1920.

The book is made up of fifteen lectures given in the Medical School of Harvard University by Dr. Janet, Professor of Psychology in the College de France.

Dr. Janet says he determined that, among the studies of pathological psychology, he would devote his time to one particular nervous disease —Hysteria. In the fifteen lectures given to the Harvard students in the Medical School he goes into minute particulars of the problem of hysteria in its various aspects. His chapter on 'Hysterical Stigmata and Suggestibility" is full of interest. So many authentic cases of stigmata are known, from St. Francis d'Assisi to the California monk of today, who both actually visualized the five wounds of Christ on their bodies, that this scientific explanation of the phenomena may satisfy medical students, but it will be denied by more spiritually minded men. However that may be, the book is well worth reading by those interested in Hysteria.

The Treatment of Acute Infectious Diseases. By Frank Sherman Meara, M.D., Ph.D. Second edition. Macmillan, 1921.

This book should be in the hands of every mother who is called upon to supplement the physician in the care of those of her household during illness.

The classification is clear and exact. Each disease is treated in a separate chapter. Food, care, ventilation, beds, etc., are treated simply in the language that the most ignorant may understand. For women living in the country this book would be of great value as teaching the simple rules of treatment and diagnosis before the arrival of a physician. To the hurried modern practitioner the careful analysis and treatment of infectious diseases offered in this book must mean much.

Dermatology—The Essentials of Cutaneous Medicine. By Walter James Highman, M.D. Published by The Macmillan Co., New York.

Dr. Highman says he has written this book for beginners, because he feels there is a need for such simple instruction for novices, for the reason that cutaneous medication is so confusing that, unless it is led up to by gradual study, it appears chaotic. He has therefore tried to present essentials succintly, consecutively completely and simply. While primarily written for the novice, it is hoped the book will not be without interest for the general practitioner. As there are about 400 more or less distinctly established skin conditions, and as neither the beginner nor the general practitioner will in all likelihood ever be called upon to treat more than one-fourth, it is believed such a book of reference will be of value to those who do not wish to devote an exhaustive study to this special branch of medicine.

Diseases of Nutrition and Infant Feeding. By John Lovett Morse, A.M., M.D., and Fritz B. Talbot, A.B., M.D. Macmillan, 1920.

The book was written, so the preface states, to give scientific rules for rational infant feeding, having for a basis the methods taught in the Harvard School of Medicine. The table of contents is as follows:

(1) Physiology and Metabolism.
(2) Breast Feeding.
(3) Artificial Feeding.
(4) Diseases of Infants relating to food.
(5) Diseases resulting from Malnutrition.

The aim of the book was not only to point the way to further investigation, but also to be of service to the clinician in his daily work.

Manual of Obstetrics. By Edward R. Davis, A.M., M.D., F.A.C.S. Second edition. W. B. Saunders Co., 1919.

"This book," so the preface states, "has been made to give a concise account of Modern Obstetrics. It is the hope of the writer that this book may help the general practitioner and the medical student to study obstetric diagnosis from the clinical standpoint and to learn how to make wise decisions in treatment." The contents are carefully tabulated and thus made easily available in all parts.

Rational Treatment of Pulmonary Tuberculosis. By Charles Sabourn, M.D., Medical Director of the Durtol Sanatorium at Puy-De-Dome, France. English translation of sixth edition. F. A. Davis, Philadelphia, Publishers, 1921.

The book is very interesting to English students of medicine as offering an opportunity of contrasting the French method of diagnosis and treatment of Pulmonary Tuberculosis with methods used by American and English specialists of this disease. Beyond the opportunity of weighing the different schools, there is not much new offered in this book. The arrangement of material and scope view is admirable, but not greater in value than much written by American writers on the same subject.

The Blind—Their Condition and the Work Being Done for Them in the United States. By Harry Best, Ph.D. Macmillan, 1919.

The dedication of this book explains the work better than any review can:

"I dedicate this book to those bearing the heaviest of human sorrows but in whose souls there shineth an everlasting light, and to those who labor for them with infinite courage and faithfulness."

The table of contents is as follows:

Part I. General Condition of the Blind.
Part II. Blindness—Possible Prevention.
Part III. Education of Blind Children.
Part IV. Intellectual Provision for Adult Blind.
Part V. Material Provision for the Blind.
Part VI. Organizations Interested in the Blind.
Part VII. Conclusions with Respect to Work for the Blind.

The book is well worth reading by those ignorant of the suffering and limitations of those suffering from loss of sight. It teaches vividly and clearly the needs of those who live in darkness, and also advocates methods of education and prevention.

Digitized by Google

DESTITUTION IN EUROPE

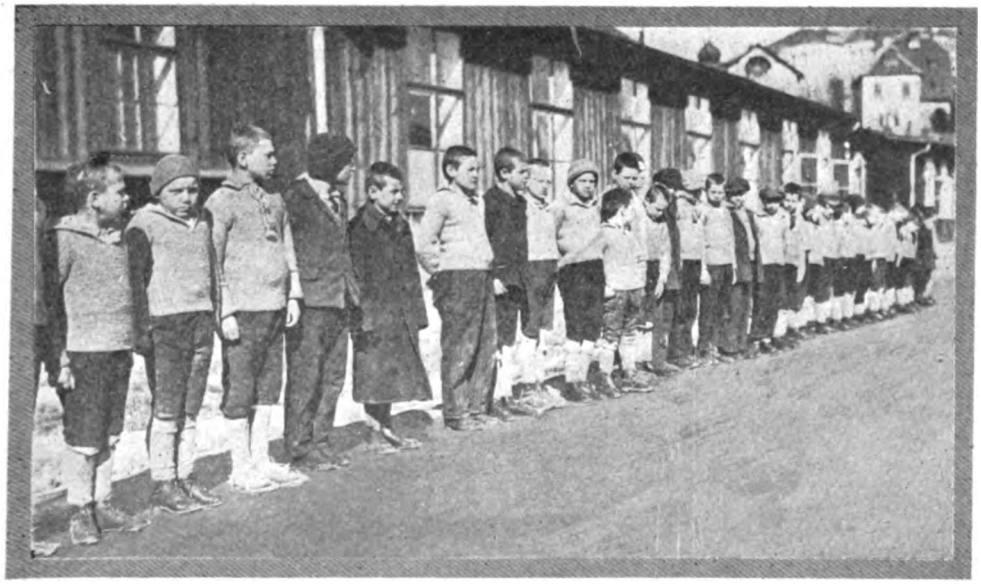
Eastern and Central Europe, and particularly the children, is nearer nakedness than it has been at any time since the close of the Napoleonic wars. In a recent review of present European conditions the American Relief Administration announced: "From the standpoint of food, conditions are better; from the standpoint of clothing, they are worse."

All observers agree that the need will reach a climax next winter. Where no clothes have been bought since 1915, except by the sale of household articles and heirlooms, the accumulated stores of years are bound to be exhausted in time, and that limit has now been reached in most families. This is as true in the homes of the formerly well-to-do, who are the new poor, as in the homes of laborers and peasants.

The chief reason why Europeans cannot buy clothes is the depreciation of their currency. Americans little realize what havoc this depreciation has wrought in the economic structure of the old world. It has brought the value of what was once a comfortable income in Vienna—15,000 crowns or $3,000 a year—to $30. Polish money has fallen twice as far as the money of Austria; in Warsaw 10,000 marks, once worth $2,500 in American money, will now bring only $10.

The effect of this money situation upon clothing is clear when it is realized that Central and Eastern Europe import their clothing or the raw materials of clothing from countries whose money is normal or nearly normal. Hence, in Vienna a suit of clothes costs a university professor three months' salary. A pair of shoes cannot be bought in Poland without a family's going hungry for a month.

So desperate is the situation babies are born with no provision made for clothing them, and the sick in the hospitals are dependent upon paper bandages. American Red Cross workers say that the number of mothers in Europe who will be unable to provide clothing for their new-born babes will pass the million mark. Hundreds of thousands of children will have no shoes when cold weather comes unless they are provided in advance by American relief organizations.



A Line of Vienna Waifs Who Have Just Received Sweaters and Shoes from American Red Cross Representatives

Digitized by Google

The Society for Cinematographic Instruction in Medicine and Surgery

The above society has devoted the past eighteen months to experimental work at hospitals and laboratories in order to definitely ascertain the applicability of the motion picture to the study of medicine, surgery and dentistry, and through processes which have been evolved it is now possible to accurately and permanently record every detail of any minor or major operation, and to portray in this most vivid manner anything pertaining to the study of the above-mentioned subjects.

The New York Academy of Medicine, and many other institutions throughout the country are now utilizing this new method of the teaching of medicine and allied subjects by actual visualization, and it is the aim and intention of this society to work out various courses of study by means of cinematography, and to establish a central cinematographic library in New York City.

The central library will be equipped for private or group study, while members and institutions at a distance may either rent or purchase at a nominal charge, duplicate copies of any of the subjects contained in the main library, and in this manner it will be possible to witness the work of the ablest men in the profession both in this country and abroad. At the present time they are negotiating an exchange arrangement with the profession in Germany and other European countries where such cinematographic work is being done, and the benefit of such an arrangement is obvious.

Further information in regard to the work of this society will be gladly furnished to any physician, surgeon or dentist upon application to the society.

105 West 73d Street, New York City

ASSOCIATED ANESTHETISTS

American Association of Anesthetists
New York Society of Anesthetists.
Interstate Association of Anesthetists.
Pacific Coast Association of Anesthetists.
Canadian Society of Anesthetists.
Mid-Western Association of Anesthetists.
National Anesthesia Research Society.

A Bust of Morton for the Hall of Fame—Send Your Contribution Now

In the election of Dr. Wm. T. G. Morton to the Hall of Fame, the allied professions of medicine and dentistry have been singularly honored. By their overwhelming vote the electors have also evidenced the appreciation of the public at large for the beneficence of anesthesia.

Recently, at the annual dinner of the American Anesthetists in Boston, during A. M. A. Week, Dr. S. Adolphus Knopf, a leading advocate for the honoring of Morton, said it would be a proud privilege for the Associated Anesthetists to place a bronze bust of Morton in the niche assigned him by the electors. This is to be done on October 16th, in celebration of the Diamond Jubilee Anniversary of Morton's First Public Demonstration of Ether Anesthesia.

The Associated Anesthetists, as well as other prominent leaders of the allied professions, are therefore urging all those interested to make a substantial contribution for this purpose.

Kindly send your check or money order at once to

Yours appreciatively,
F. H. McMECHAN, M.D.,
Sec'y-Treas. Associated Anesthetists,
Lake Shore Road, Avon Lake, O.

The Modern Method of Feeding Infants

Modern infant feeding calls for a formula suited to the individual requirements of the individual baby. The physician now realizes that an infant deprived of breast milk must be fed as an individual. The nourishment from the infant's food is principally derived from cow's milk. The "foods" contain no mysterious life-giving elements, but are used as modifiers. As such they are indispensable for their carbohydrate content, the added carbohydrate being necessary to make up for the loss of carbohydrate when cow's milk is diluted with water. It is also important that these "foods" are given as carbohydrates, and should not contain a mixture of vegetable protein and fat, since the cow's milk supplies animal protein and fat in proportion suitable for the growth of most babies.

Infant feeding should be directly under the control of the physician. Realizing this important fact, Mead, Johnson & Company, of Evansville, Ind., have manufactured a line of Infant Diet Materials suitable for the individual requirements of the individual baby. These products do not carry laity directions on the trade packages. Such directions on a package of food is the unsurmountable wall that differentiates between individual infant feeding and indiscriminate infant feeding. The physician may prescribe Mead's products with perfect confidence.

Mead's line of Infant Diet Materials consist of Mead's Dextri-Maltose (Dextrins and Maltose), Barley Flour, Dry Malt Soup Stock, Casec (Calcium Caseinate for preparing Protein Milk), Arrowroot Flour and Cerena, all of which are supplied without any directions on the packages. Over and beyond the gratifying results obtained from Mead's products, the physician is given unlimited scope to his own creative talents, hence there will be a greater number of better babies in his immediate neighborhood. The mother who uses Mead's Diet Materials at the direction of her physician is disposed to place credit for the welfare of her baby where credit belongs, i. e., to the doctor. The Mead-Johnson policy means the realization of an ethical ideal.

Interesting publications on Infant Feeding, prepared by Mead, Johnson & Company, are well worth writing for. Letters addressed to them will receive personal attention from their Scientific Department.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 10

October, 1921

$3 per year in advance
Single Copies, 25 cents

THE RELATION OF GYNECOLOGY TO THE GLANDS OF INTERNAL SECRETION*

By LILIAN K. P. FARRAR, A.B., M.D., F.A.C.S.,
Junior Attending Surgeon, Woman's Hospital in the State of New York

(From the Clinic of the Woman's Hospital)

IN the human body are a number of glands which do not possess ducts, but which are so intimately connected with the blood system that a current of blood circulates through them—hence the name of "blood glands" or "ductless glands," but it is only in quite recent times that any considerable knowledge has been gained of the physiology and pathology of these glands. It is in fact only since the last half of the nineteenth century that it has been known these glands secrete certain substances which are absorbed directly into the blood system, and for this reason the glands are sometimes called the "endocrinic organs" (endo, within; krino, secrete), but more commonly they are known simply as the "glands of internal secretion."

These glands are situated in different parts of the body and are totally unlike in their structure. The internal secretions are peculiar to each individual gland, and play important but widely different roles in the human economy. As Cushing says, "A disturbance of each one of these glands, whether in the direction of over-activity or under-activity, doubtless will be found to possess its own characteristic clinical syndrome which differs from that of every other gland." The research work that has been done on the internal secretions up to the present time has established beyond doubt that these glands form a group which is so closely correlated that if one member of the group is injured by disease or removed at operation, changes soon occur in the other members of the group, thus showing that a circle has been broken and the physiological balance lost, with more or less disturbance ensuing to the system until the balance can be re-established. This disturbance may occasion alterations in one or possibly in all of the correlated glands during the compensating readjustment of the physiological processes, or the original exciting influence may have been the underlying cause for disturbance in several glands of the system at the same time, thus, in either case, producing a pluri-glandular syndrome. These changes vary with the particular gland affected and also with the age of the patient when the change occurs. In one instance it may appear as though a controlling force had been withdrawn, and in another case as though some stimulating influence had been lost.

The alteration of any one gland may excite it to greater activity, hence we speak of it as "hyper" functionating. The same gland may even seem at different times to possess both qualities, for over-activity, Mariel says, tends to a final stage of pathological gland sluggishness. A third prefix, "dys," is used to designate a disturbance of function in a gland whose component parts have different functions, and the clinical manifestations are not clearly of the hypo—or hyper—functionating type. The clinical experiments made by different workers along the lines of research are often contradictory, as the subject is so vast and the nature of the experiments difficult. I will try to give only the facts most generally accepted, to show in a very brief way the immense influence wielded by the glands of internal secretion in the general organism, and more especially in gynecology.

In the seventeenth century Descartes established the existence of the central nervous system in the regulation of the organic function of the component parts of the body and the inter-relation of function of the different parts. Messages are carried from the outside world by the centripetal nerves to the central nervous system, and from there the different activities of the body are regulated, controlled and co-ordinated. Up to the last half of the last century, scientists believed that the central nervous system was the sole agent

*Read before the Women's Medical Society of the State of New York, May, 1920.

Digitized by Google

by which the activities of the body were brought into co-ordination. The discovery of the circulation of the blood by Harvey proved the existence of a second channel of communication between the different parts of the body.

The first experimental proof of what we now call internal secretion was made by Berthold of Gottingen in 1849. In 1855 Claude Bernard, by clinical investigations upon the hepatic function, proved the existence of an internal secretion (Glycogen) in addition to the known external secretion (bile) of the liver. He stated that every organ of the body by a process of internal secretion whereby it yields the products up to the blood, determines the composition of the blood, and can, under certain conditions, modify and even change it, thus establishing a third mode of stimulation, viz., biochemical stimuli, or, as we now term these internal secretions, hormones (from xzfiflffffi to excite or arouse), since they pass through the blood and excite or arouse the activities of other glands of the body.

In the same year (1855) appeared Addison's classic monograph on diseases of the supra-renal capsules, describing a definite clinical syndrome ensuing after destructive alterations in these glands by disease, and in 1884 Pierre Marie demonstrated the condition "acromegaly" resulting from hyperactivity of the pituitary gland.

In 1869 Brown-Sequard further elaborated the conception of internal secretion, stating that all glands, with or without ducts, supply to the blood substances which are either useful or essential to the body, and the lack of which may produce pathological signs; but it was not until twenty years later (1889) that he was able to give experimental proof of his views and thus lay the foundation of the theory of internal secretions, and demonstrate the first practical application, thus affording a new method of treatment, which is now known as the Brown-Sequard method, or organo-therapy.

In this same year (1889) Rogowitch, by experimental studies, proved that lesions of one gland affect the structure and function of others. So the idea of organo-therapy has developed from the experimental studies of Brown-Sequard and Rogowitch, and we make use of it today (1) by feeding normal gland substance to an individual with a hypo-functionating gland of the same kind, or (2) by feeding normal gland substance to an individual with a dissimilar and hyper-functionating gland when we have reason to believe the correlation of the two glands is close.

The immense benefit derived in some instances from organo-therapy borders on the miraculous; in other cases there has been little or no improvement shown, but it does not seem too optimistic to hope for equally favorable results with other glands when further research work has been done along these lines.

Brief Summary of the Most Important Characteristics of the Endocrinic Glands in Their Relation to Gynecology.

I. Varieties:
1. Sex Glands—(a) ovaries, (b) testes.
2. Hypophysis.
3. Thyroid.
4. Para Thyroid.
5. Adrenals.
6. Pineal.
7. Thymus.
8. Pancreas.
9. Mammary Gland.
10. Placenta.

II. Physiological and Pathological Characteristics:
1. Ovaries.
   (a) Follicle apparatus
      (1) Primordial follicle
      (2) Ripening follicle
      (3) Graafian follicle
   (b) Corpus Luteum
      (1) of menstruation
      (2) of pregnancy
   (c) Follicle Atresia
      (1) obliterating
      (2) cystic (cystic formation is the normal physiological process in the ovaries.
   (d) Interstitial Gland
      This gland corresponds to the theca lutena cells of the atretic follicles.

Both clinical evidence and animal experimentation have shown that the follicle apparatus and the corpus luteum are glands of internal secretion, and it is probable the interstitial gland has also a similar secretion.

The follicle apparatus presides over the growth and nutrition of the genitalia and the corpus luteum over the cycle of menstruation. It prepares the endometrium for the possible embedding of the ovum and the corpus luteum of pregnancy, and

Digitized by Google

it is believed it maintains, certainly in the earliest weeks, the continuation of pregnancy. While the function of the interstitial gland is still in doubt, it seems probable that it has a role to play, together with the follicle apparatus in the development of the secondary sex characteristics, viz., female pelvis, the rounding of the form, breasts, increase of fat under the skin, length of hair, and its distribution, external genitalia, etc.; and it may continue to produce a secretion after the cessation of menstruation.

III. Hypophysis (gland of feminism):

The correlation of the hypophysis with the genital glands is very close. The anterior lobe presides over the skeletal growth and genital development, the posterior lobe over tissue metabolism (sugar tolerance), and the activity of the renal and vascular system.

(A) Hyperactivity of the anterior lobe before adolescence produces:
  (a) Gigantism,
  (b) Eunuchoid,
  (c) Hypodevelopment of the genitalia.

There is an overgrowth of the long bones with male type of pelvis, and absence or poor development of the secondary sex characteristics. The hands are large and square ("spade") with thick clubbed fingers. The teeth large and the upper incisors separated. Hirsutes is present, and dysmenorrhœa, amenorrhœ and sterility common.

(B) Hyperactivity of the anterior lobe after adolescence produces:
  (a) Acromegaly,
  (b) Secondary sex characteristics normal, as they are developed before puberty.

There is a thickening and coarsening of the skin of the hands and feet, and an infiltration of the tissues of the nose and lips, giving almost a negroid appearance at times.

Tandler and Gross, in 1908, first called attention to the similarity of the "facies of pregnancy" to the changes produced in acromegaly, and ascribed this to the increased physiologic activity of the gland during pregnancy. There is also a temporary thickening of the tissues of the hands and feet, an hypertrophy of the turbinates, an increase in stature, and a physiological glycosuria during pregnancy (Cushing).

Menstruation soon diminishes with the hyperactivity of the hypophysis, and sterility follows. The secondary sex characteristics are often lost.

(C) Hyperactivity of the posterior lobe before adolescence produces:
  (a) Fat aplasia of the genitalia.
  (b) Amenorrhœa, partial or complete.

(D) Hyperactivity of the posterior lobe after adolescence produces:
  (a) Excessive fat, especially "girdle" fat.
  (b) Adiposo genitalia.
  (c) Amenorrhœa and sterility.

(E) Hypoactivity of either lobe before adolescence produces aplasia of the genitalia.

Disturbance of both lobes before adolescence produces very definite conditions. The syndrome best described by Froehlich and known as "Type Froehlich" is not infreqeuntly met in gynecology on account of the scanty or absent menstruation. The picture is one of undersized stature, maxillary prognathism, peculiar adiposity, aplasia of genitalia, sub-normal temperature and hypotrichosis of the male type. The hand is small, plump, with tapering fingers. In contrast to this is "Type Lorain," or infantilism. The picture now is one of a weak, delicate, undersized girl with no secondary sex characteristics, and complete absence of menstruation. The hand is delicate, infantile and much pigmented.

Chétivisme is the term employed by the French to describe the arrest of development with conservation of the relative adult proportions of the body, and "Uanism Complet" is the superlative of Chétivisme when certain morphological characteristics of infancy are retained.

IV. Thyroid.

(1) Absence of thyroid produces cretinism.
(2) Hypothyroid produces myxoedema.
(3) Hyperthyroid produces Graves' Disease.

Physiological enlargement of the gland occurs during menstruation, and pregnancy. Amenorrhœa occurs in cretinism and myxoedema: and menorrhagia and metrorrhagia, dysmenorrhœa, sterility, miscarriages in hyperthroidism; nervous excitability in the menstrual epochs, and menstrual depression. In hyperfunction

Digitized by Google

of the gland the skin is usually fair, teeth regular and enamel glistening white, hair thin or deficient. In hypoactivity the skin is dull, scaly and acne often seen. Hyperactivity before development means prematurely old (Liliputian) and senile. Gudernatch fed tadpoles (1) with thyroid and obtained fully developed tiny frogs ("petit vieux"), (2) with thymus and obtained enormous tadpoles ("grands enfants").

V. Para Thyroid.

Hyperactivity is evidenced in pregnancy by the tetany of pregnancy.

VI. Adrenals (the gland of masculinism).

(1) Cortex.
(2) Medulla.

There is evidence that both are hypertrophied during pregnancy and probably at time of menstruation.

Hyperactivity of the gland is characterized by pigmentation of the skin in freckles or moles, and by pigmentation of labia minora and vaginal mucosa. Hirsutes and stained or spotted teeth are common. Physiological activity of the gland is shown during pregnancy by the pigmentation of the nipples (aureola) and face in the so-called "mask of pregnancy."

Amenorrhœa and sterility are frequent occurrences when Addison's Disease is established, and often a very early symptom.

VII. Pineal Gland.

Activity of the gland causes precocity, both corporeal and sexual

VIII. Thymus.

This gland usually disappears at puberty, and its persistence means delayed gonadal gland development and resultant "juvenilism."

IX. Pancreas.

Its activity is manifested during pregnancy by the physiological glycosuria of pregnancy.

X. Mammary Gland.

The relation to menstruation is shown by the swelling and painful sensation which frequently precede the onset of menstruation. The physiological action is demonstrated in the tonic effect on the muscle of the uterus after labor by the stimuli of nursing.

XI. Placenta.

This gland is responsible for the hyperplasia of the breast during pregnancy, and institutes secretion of the mammary gland.

Causes of alterations of the glands of internal secretion:

(1) Inheritance.
(2) Developmental defects.
(3) Trauma (gun-shot wounds).
(4) Physiological.
The epochs of life—i. e., puberty, pregnancy, menopause.
(5) Infectious diseases.
(6) Operations (castration).

XII. Organotherapy.

(1) Glandular extracts.
(2) Glandular residue.
(3) Whole gland.
(4) Gland transplantation (whole or in part) in the body.

Conclusion

We have seen how closely related are the glands of internal secretion to the generative glands. In many instances the first symptom of disturbance in one gland is manifested by alteration in the menstrual cycle. During the child-bearing and menstrual period of life Graves says, "The ovaries not only exercise a distinct and trophic influence over the uterus and external genitals, but they seem to play a certain more or less important part in the general chemistry of the organism." The influence of the internal secretion of the ovary is seen before puberty, though; for it is through this internal secretion that the physical characteristics of the child change into those of the young girl, and again in the lack of influence seen in the artificial menopause produced by removal of the ovaries, when the pathological manifestations often transcend those of the natural menopause. The ovary acts as a central gland, gathering up the stimuli of the other glands in the system to transmit messages anew. As Virchow stated, the generative glands are not for the production only of ova, but they possess an internal secretion which is a great controlling force for good or ill throughout the body. Just as it checks the activity of other glands, so is its influence held in abeyance by the other members of the group. The relation of gynecology to the glands of internal secretion would seem then to be closer than between any other two glands of the system. As Loeb says, "We must consider the possibility that the relation between uterus and ovaries represents a chain of connected phenomena of which the first and last members are uterus and ovaries, and the intermediate links are formed by other glands of internal secretion or certain nervous structures."

Digitized by Google

"BIOLOGICAL FAILURES"

By FRANCES L. GARSIDE

IN the opinion of a New York judge, women who are forced to seek employment, never marry, and finally, for the sake of convenience, comfort and economy, leave boarding houses and hotels and move into little homes of their own, are "biological failures."

He made the charge in a case brought by a number of young women incorporated under the name of the Beekman Hill Association. They had purchased the property consisting of four dwelling houses with the intention of remodeling them into small apartments, suitable for one occupant or two, every tenant to become a shareholder in the property. It took some time to get all the former tenants out, and the matter was taken to court. The women won, after several months, and the judge added that he was sorry they had won.

"He told us plenty of things about ourselves," said one of the young women, "but the best he told us was that, as biological failures, we should not be permitted to have homes of our own. He said that we were away at work all day, and he wasn't sure but at night, too, and he didn't see why we were entitled to a home."

The women (for this must be their story, since it is the story of all women forced to earn a living) have been self-supporting since they left school, and in addition to caring for themselves are assisting in the care of some relative, and doing it without complaint.

"Yes," asserted a snappy spinster, "we are; I know dozens of 'biological failures' who are sending money to their sisters who are married; I can name a number who are sending nephews and nieces through college. If some in the family had not been 'biological failures,' the married sisters and their children would have known hardship and want."

Owned co-operatively by forty women, this new home promises to be an achievement in comfort, economy and independence. A single investment of $2,000 apiece, or $1,000 apiece if the apartment is shared by two home-seekers, entitles the owner to an all-light, breezy three-room apartment of large studio, bed-room, bath and kitchen with all modern conveniences. From $50 to $57.50 monthly is to be paid by tenants to meet repair and upkeep expenses and to make payment on mortgages for a term of years. After that all the bare yearly upkeep of the property will come out of the pockets of the owners.

There is a large garden in the rear with rustic seats; there are individual storerooms and lockers. The exterior has been attractively refaced in stucco with green shutters, with American basement entrances.

This housing project is an experiment initiated by the National Board of the Young Women's Christian Association, and has been carried forward under the advisory direction of the Association which began over a year ago the investigation necessary to its organization. Now that owners have been secured, the Association retires from active participation. Retiring from this particular project means, without doubt, greater time for launching a similar one in some other city where housing conditions make a home out of the question for "biological failures."

That there is more chance the women wage-earner will keep in better health when living in a home of her own, is beyond question. Ill health arising from the frying pan in a restaurant is the final fate of those who eat restaurant meals all their lives. A woman in her own little home may have her fresh fruit, her coffee with real cream, and a fresh roll and sweet butter in her own home at one-third the cost of fruit not so fresh, poor coffee and a roll served with poor butter in all the noise and clatter of a noisy restaurant.

Even biological failures must keep well. They have business responsibilities to meet; they have family cares which they inherit because of the misfortune or inability of some man; they are not carefree; thy cannot drop out of the ranks without spelling disaster to some who are dependent on them. These are reasons for the sake of the world why they should own their own homes and enjoy the right to keep well.

"For the sake of the world" is apt. Selfishness is not often characteristic of the unmarried woman who is pulling down a good salary, if you look close and investigate where her hard-earned money goes.

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association Headquarters, 637 Madison Ave., New York

A REPORT TO THE EXECUTIVE BOARD OF THE A. W. H.

By DR. ESTHER LOVEJOY
Chairman, Upon Her Return From Europe

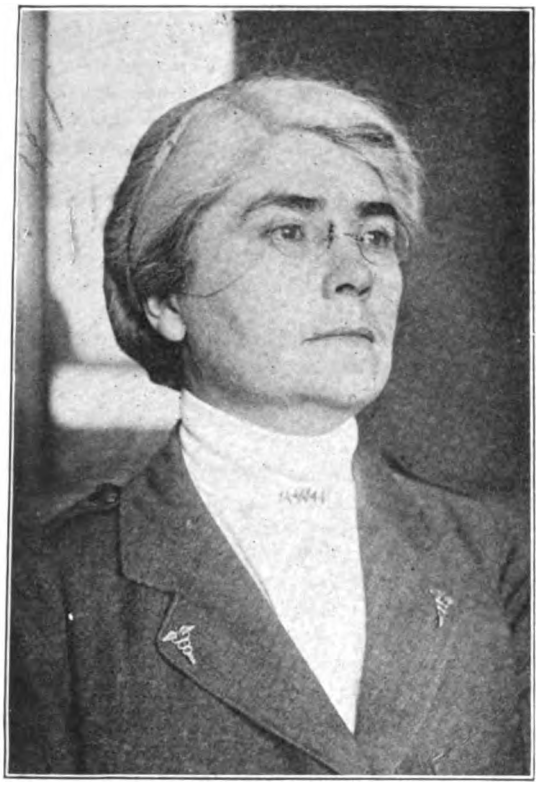
The following report of her visits to the different hospitals in Europe, under the management of the A. W. H., by Dr. Esther Lovejoy, who has just returned to America, is of such thrilling interest to our readers, that we held the "Journal" for a few days in order to be able to publish it in the October number. There will be other articles in November and December numbers, going into detail concerning this wonderful work that the organized medical women of America are doing through the American Women's Hospitals.—[Editor.

FROM a purely business standpoint my trip to Europe in the interest of the American Women's Hospitals was highly satisfactory. On arriving at London, a conference was arranged with the manager of the American Relief Administration, and I had the pleasure of hearing a very flattering report on the work of the American Women's Hospitals in Serbia, which was made by Mr. Bell, who, following the application of this Board for a gift of clothing from the American Relief Administration in New York, was sent to Veles for the purpose of investigating our work and making recommendations regarding this gift. Mr. Bell recommended that clothing for 24,000 children be granted by the American Relief Administration for the American Women's Hospitals' use in Serbia, and a very generous gift was made by the central office in New York. The first consignment of clothing was shipped from New York on August 10th on the S.S. Crewe Hall and the second consignment shipped on the S.S. Chester Valley on August 27th. This clothing will be distributed in Southern Serbia during the winter.

The American Women's Hospitals is indebted to the American Red Cross for the very generous support from the beginning of the work in France up to the present time. When I arrived in Paris there was a telegram from Dr. Gray asking for hospital supplies. I am very glad indeed to report to the Board that the American Red Cross at Paris gave us a very generous consignment consisting of medicine, surgical instruments and other hospital supplies, amounting all told to approximately 400,000 francs.

In order to keep my appointment with Mr. Vickery and his party of the Near East Relief people at Constantinople, it was necessary to cut short my visit in France and go directly to Constantinople with a stopover of one day in Belgrade for a conference with Dr. Gray. For some reason Dr. Gray was unable to keep this appointment, so I proceeded to Constantinople.

Digitized by Google



DR. MABEL ELLIOTT
In charge of A. W. Hospitals in Turkey and Near East

An interesting situation existed at Constantinople. The work of Dr. Mabel E. Elliott is a very great credit to the American Women's Hospitals. According to her report in February she already had entire charge of all the medical work of the Ismid, Bardezag and Derindje regions. This included the large hospital at Ismid and clinics at several different places; a smallpox and a tubercular camp. In addition to this a trachoma hospital had been opened for orphan girls. Thousands of children were deported during the war into what is known as desert regions, and a large proportion of those who returned were suffering from trachoma. This trachoma hospital is situated about 200 feet down the hill from the general hospital, which overlooks a fine harbor on the Gulf of Ismid.

Trebizond was the place that was originally selected for the co-operative work of the American Women's Hospitals and the Near East Relief Committee, but on account of the military activities in that district the original plan was abandoned and the work was established at Ismid. There was a large number of refugees and orphan children at Ismid and no indication last year of the possibility of warfare in the district. The Board is familiar with the fact that within six months of the opening of our work at this place, it had become the battlefield of the Greeks and the Kemalists. During the final battles and evacuation of the city the American Women's Hospitals was able to render valuable humanitarian service to those who were wounded. Dr. Elliott had already established a training class for nurses, and although these girls were obliged to leave on account of the Turks taking the city, it will be gratifying to the members of the Board to know that they were so well qualified that they were able to secure employment as nurses in the Greek Military Hospitals. At the time of my visit to Ismid the hospital was full. There were Greeks, Turks and Armenians in the wards.

On account of the war there were no regular boats running to Ismid, but an ocean steamer had been chartered by the Near East Relief Committee to carry a consignment of supplies to that district. I joined Mr. Vickery's party (between thirty and forty persons), and made the trip to Derindje on this steamship. From Derindje we took automobiles for the rest of the distance. Turkish guards and sentries were stationed at different places along the road, and traffic was practically forbidden except by special permission. Only a few of the party were permitted to go through the lines to our hospital, but those who had the luck to reach it were enthusiastic in their praise of the hospital and the work accomplished by Dr. Elliott in keeping it open and running it during and subsequent to occupation of the district by the Kemalists.

The situation was a delicate one, and from the standpoint of those best informed regarding political conditions in Turkey it was important for the American Women's Hospitals to observe an absolutely neutral and humanitarian attitude. Indeed, it was gratifying to be told by Admiral Bristol, the American High Commissioner, that the tactful and important administration of the Ismid Hospital had become a matter of comment in official circles in Constantinople.

Admiral Bristol has written a letter to the Board regarding the importance of the work of the American Women's Hospitals in that country. He is strongly in favor of medical women, and told me personally that it was far more than a relief work;

Digitized by Google

that it was a diplomatic service of value to the United States, and that the presence and influence of a larger number of American medical women in Turkey would be extremely helpful to the women of that country who are making a strong effort to free themselves from social and religious bondage.

I cannot say enough in praise of the work of Dr. Elliott in Turkey. Her attitude has been heroic and the work outstanding for efficiency. She is very anxious to establish another hospital in cooperation with the Near East Relief Committee and conduct it along the lines of the American Women's Hospitals and the Near East Relief at Ismid. I was invited to go into Armenia and Georgia as the guest of the Near East Relief Committee, but owing to a shortage of time I felt obliged to decline this invitation and go directly to Veles, Serbia.

The American Women's Hospitals has conducted an important relief service in Serbia. In time and magnitude it is more extensive than the A. W. H. work in any other part of Europe. An auspicious day (February 22, 1919, Washington's Birthday), was chosen for the official beginning of the campaign for funds to finance our work in Serbia and the Near East. Miss Bertha Bloom was the manager. She was assisted in this work by the members of this Board, all of whom are still serving with the exception of Doctors Crawford, Cohen and Thomas, to whom great credit is due for their devoted work in raising funds.

When I took charge of this office in June, 1919, a call had just been sent out for the first Serbian unit, which consisted of Doctors Caven, Ridout, Ingrams, Bercea and Kleinman. This unit was assigned for service with the Serbian Relief Committee, and sailed from New York in July, 1919. Doctors Bercea and Ridout are still in the service of the American Women's Hospitals in Serbia.

On June 27, 1919, the Executive Board of the American Women's Hospitals appointed Dr. Etta Gray Director of the Serbian work, and a few weeks later she sailed on that mission. Dr. Gray is greatly to be congratulated upon the achievements of the American Women's Hospitals in Serbia. Practically all of the medical women and nurses in this service have given devoted and efficient service.

Five hospitals and dispensary centers have been conducted and separate dispensaries at different places at different times. These are as follows: the hospital and dispensary center at Prilep; two hospitals (general and venereal) and dispensary center at Pristina; the hospital and dispensary center at Strumetza; two hospitals (general and children) and dispensary center at Veles. Separate dispensaries have been conducted at Giljian.

Pristina

At Pristina the American Women's Hospitals took over the work for the prevention of venereal diseases, which had been conducted by the Government. This was a military post, and prostitutes were detained and treated with the idea of preventing infection to soldiers. In addition to this there was a children's clinic and a general hospital.

It was difficult to secure supplies and surgical instruments at the time Dr. Tognazzini took charge of this work. However, she was very ingenious improvising apparatus, surgical instruments, a still for distilling water, and many things of great use in this hospital.

Prilep

The American Women's Hospitals at Prilep is comparatively small, but a very satisfactory place. There are about fifty beds in this hospital, but a large clinic and out-patient department is conducted in connection with it. Dr. Ridout, who has been chief of this service for over a year, has certainly made a fine record. Dr. Ridout was one of the first Serbian units, and sailed from the United States in July, 1919. She expects to return to America before long, and Dr. Marguerite White has just taken her place at Prilep.

Dr. White is a very able surgeon, and she will find a large amount of surgical work to do at this station for the reason that Dr. Ridout was not a surgeon and there are a large number of chronic surgical cases to operate upon.

The American Women's Hospitals service in Southern Serbia offers a great opportunity for any young surgeon to acquire that skill which comes only as a result of operating upon a large number of cases. Surgeons are few and far between, and certain types of chronic surgical cases are very numerous.

As a result of the heavy work in this country a large number of hernias developed. The old chronic cases are most in evidence for the reason that the acute strangulated cases resulted in death long ago. Many of these hernias have existed for years, and the sacks often hang down

Digitized by Google

toward the patient's knees and contain a large part of the digestive apparatus of the individual. Dr. White says she expects to write a paper on hernias, and believes that she can make an interesting report on what she is pleased to term "scrotal digestion. There are also a large number of cases of stone in the bladder among children. It would be interesting to determine, if possible, why this particular section of the world should produce such a large percentage of these cases. The specimens of stones herewith submitted were removed from the bladders of children by Dr. Tognazzini at the American Women's Hospitals at Pristina.

Giljian

At Giljian the American Women's Hospitals is conducting a unique medical work. There is a dispensary center, but no hospital. Miss Hollway, a Scottish nurse, is in charge of the work, and on account of there being no doctor available in the district she is often called upon to give first aid and sometimes last aid to all kinds of medical cases. This woman has been in service in Serbia for the past six years. She speaks the language and is devoted to this work, which she seems to regard as her great calling in life. There is probably no person in the service of the American Women's Hospitals so well known and well beloved by the people of the country as Miss Hollway.

The mountains around Giljian are infected with Albanian bandits. It is not at all unlikely that many of these people live on farms and pursue ordinary occupations as a regular vocation and engage in highway robbery partly for gain and partly as a protest against the increased prestige of the Serbians since the war. The identity of these bandits is unknown, and they probably come to our dispensary for help when they are sick. In any case, Miss Hollway seems to be the one person who can travel unmolested at any time, any where, and the Serbians passing from place to place frequently ask the privilege of going in Miss Hollway's company, because it is generally known that she is exempt from attack from the brigands in the mountains.

Just a few of the Russian Refugees now being buffeted about the countries of Europe.

Digitized by Google

Veles

In Veles two hospitals and a large dispensary are conducted. All kinds of cases are accepted at the General Hospital, precedence being given to the people in most urgent need. As a matter of fact, a large percentage of the cases in the General Hospital are surgical cases, and many major operations are performed there. While I was at Veles Dr. Gray frequently operated from morning until night.

The people living in Southern Serbia manifestly have great confidence in Dr. Gray as a surgeon. Patients are brought from long distances, and amusing instances frequently develop in connection with this work. For instance, I recall one patient who had been shot in the mountains by the brigands. The bone of his thigh was shattered. He had been lying for perhaps five or six days, and when he reached the hospital his only chance of life was the amputation of his leg. The wife and brother of this patient consulted together, and then told Dr. Gray that they were perfectly willing that the man's leg should be amputated providing the American Women's Hospitals would agree to furnish a wooden leg in case he got well and pay for his life in case he died.

The Children's Hospital at Veles is a remarkable place. This hospital would be a credit to New York City. The building is large. By putting cots in the halls it is possible to care for as many as two hundred children. There were between 150 and 200 there at the time of my visit. It is a pity that Veles is difficult to reach, and for this reason comparatively few people are able to see this hospital. It is the largest, best equipped hospital for children in all Jugo-Slavia.

In March, 1920, a Nurses' Training Class was established in connection with the hospital at Veles. The members of this class were carefully selected, and only those who had enjoyed the best educational advantages of the country were accepted. Some of these young women have made remarkable progress. Several of them speak very fair English and act as interpreters between American nurses and doctors and the patients. Mrs. Cruikshank and Mrs. Harrison, two very able American nurses who recently arrived in Veles, could scarcely believe it when they were told that these girls had had less than two years' training. Mrs. Harrison was trained in the Massachusetts General Hospital. She has been superintendent in different

Mothers and children at the clinic for poor children at Saloniki

Digitized by Google

hospitals and a teacher in different training classes of nurses. At the present time she has charge of the training class of nurses at Veles.

Among the nurses serving at the Children's Hospital are the Princesses Nathalie and Tatiana. These young women belonged to a very prominent family in Russia before the revolution, and have particularly requested that their family name be withheld from publication. This family possessed a fine estate in Southern Russia and spent their winters in Petrograd. Their property was entirely confiscated by the Bolshevists. Together with other members of the family and their English and French governesses, they escaped and finally joined Wrangel's Army. Meanwhile, their brothers had been killed, and their mother had died from hardships incident to their escape. These girls had served as nurses among the Russians and had experienced all the vicissitudes of Wrangel's Army, which they followed in men's attire. They are very glad indeed to be able to earn their living, and are grateful for the small salary which we pay them.

The need for hospital and dispensary service in Southeastern Europe is very great indeed. Dr. Elliott and Dr. Gray are both anxious to continue, and it is to be hoped that the funds can be raised for this purpose.

The progress of any country is pretty surely indicated by the position of its women, and I am of the opinion that a strong feminist movement would be helpful in Serbia and Asia Minor. While the American Women's Hospitals is a relief organization, the fact that it is conducted entirely by women gives it a special value from a feminist viewpoint, and the presence and status of the American personnel is an inspiration to the native girls.

The members of the nurses' training class at Veles and elsewhere have learned more than English and nursing. They have developed an independent spirit, and if we can sustain them until they are a little older and a little stronger our work will have a greater value both professionally and socially.

A. W. H. in France

The Health and Social Center at Levallois-Perret, where the Executive Board of the American Women's Hospitals decided to develop a dispensary with funds given for this purpose, has made great progress during the last two years. This was partly due to the spirit of the woman in charge of this work and partly due to a fortunate circumstance.

The dearest possession of this Tirana, Albania, girl is the clean garments she has just received.

Some sixty years ago a wealthy perfumery manufacturer, who had a factory at Levallois-Perret, built a very fine residence adjacent to his factory, and planned and developed a large private park in connection with this residence. The place is at least as large as two New York City blocks. It has about 100 trees, and might easily pass for a section taken out of the heart of Central Park. The man who built and owned this residence died recently, and his heirs did not want the place because factories of all kinds had grown up around it. Therefore, it was bought by a group of wealthy French people friendly to the work of Mademoiselle Bassot, and she was given a twenty-year lease upon this place with the expectation that during that time she would be able to raise enough money to buy it outright.

Digitized by Google

View of Health and Social Center at Levallois-Perret

Some time Mademoiselle Bassot wrote regarding the advantages of purchasing a certain group of buildings and remodeling them for this dispensary. This did not appeal to me for the reason that I did not understand it at this distance, but after examining the buildings and property and considering the relative cost of building a new dispensary or remodeling the old one, I think the recommendation of Mademoiselle Bassot regarding the purchasing of the old buildings is preferable instead of building at this time when materials and labor are very costly. In case a new building is constructed it will be on a site at the rear of the property adjoining a certain playground, which was equipped by the Junior American Red Cross.

Dr. Kate Campbell Mead, Dr. Hazel Dell Bonness and Mr. William Sloan were consulted in regard to this matter. They all examined the buildings and the two sites, and were unanimous in the belief that it was better to purchase the old buildings and refit them than to build a new building at this time. The buildings are in architectural harmony with the other buildings at this Health and Social Center, besides they stand on the most prominent corner of the property.

This Health and Social Center will probably be more important to France as a nation than any one institution in the United States is to our country. Young women are already being sent from different parts of France to live at this place and study social work, and the connection is a very creditable one to the American Women's Hospitals.

A. W. H. in Devastated France

The medical women intimately connected with the work of the American Women's Hospitals will always be grateful to the American Committee for Devastated France for their assistance and co-operation in supporting our work in France.

It was my pleasure and privilege to visit the different places where the American Women's Hospitals had conducted hospitals and dispensaries during and subsequent to the war. Mrs. Arthur Hamm, of the Committee for Devastated France, went with us. This devoted woman was working with the committee at the time our hospitals were in operation at Luzancy, La Ferte Milon and Blerancourt.

It was gratifying to see the American Women's Hospitals at Blerancourt consisting of eight pavilions, where all kinds of cases were being cared for. This hospital is still conducted under the name of the American Women's Hospitals, although there are two French doctors in charge of the work.

Dr. Edna Ward, one of the dentists sent over by the American Women's Hospitals, is still in service with the American Committee for Devastated France.

My time was limited, and although we spent but two days in making this circuit, we met a large number of people who told us about the American Women's Hospitals, and referred affectionately to the personnel. Mrs. Hamm was very well acquainted with the doctors of Unit No. 1, and sent greetings to the different members of this unit.

Digitized by Google

CHILD HEALTH WORK IN AUSTRIA

By D. O. LYON, M.D.,
Medical Director of the American Red Cross in Austria

THE new medical program of the American Red Cross, which went into effective operation here on July 1st, has given a new impetus to Austrian child-health work, which was threatened with complete extinction owing to financial difficulties. The Red Cross has taken over one hundred child-health stations which were about to close from lack of funds, and has guaranteed financial support for a period of one year.

Austria was a pioneer in scientific child-health work, and is still in many ways far in advance of other nations. Vienna's first child-health center was established in 1904 by Dr. Sperk, a pupil of Theodor Escherich. This first "well baby station" was operated in connection with the old Kinder Klinik, and its supporting organization was called the Verein Saeuglingsshutz. A few months later Dr. Siegfried Weiss opened several similar centers, which operated in the same manner and were supported by the parent organization.

These stations were called "Mutterberatungstellen" (stations for giving advice to mothers), and cared for children up to one or two years. They were distinctly for healthy children. Here the children were weighed and measured and carefully examined by a competent physician. In addition, the society operated a milk kitchen, by means of which those mothers who could not nurse their babies were supplied with prepared feedings. It was always the policy, however, to insist on the mother nursing the child whenever it was possible.

The work of the stations grew slowly but steadily until 1911, when the interest in it was greatly stimulated by the International Congress, which met that year in Berlin for discussion of the care of children of the nursing age. Out of this interest grew the Staedtisches Jugendamt, which undertook similar work to that of the Vereins Saeuglingsschutz und Saeuglingsfuersorge, but added to it other features. They opened stations for the examination and advice of pregnant women and required that all children born in Vienna should be registered with them. The organization is also the guardian of all orphan or illegitimate children, and assumes the responsibility for their oversight. Other children, however, may also come to the stations.

The nurse in charge of each station must visit the homes of children who are orphans or illegitimate, and is expected to visit other children when it is possible.

In addition to these activities, the Jugendamt also runs a number of kindergartens for children between the ages of 3 and 6.

So things stood at the beginning of the war. In 1914 the Kriegspatenchaft, a society for the care of families of men at the front, was established by Dr. Moll. While it was for the care of the entire family, it made a specialty of the oversight of infants and small children.

After the war, when the appalling condition of the children became so glaringly apparent, and foreign agencies came to Vienna with the idea of giving what aid they could to the Austrian people, especially the children, it became necessary to have many stations for the examination of children to determine which ones most needed nourishment.

The Hauptausschuss* rapidly established stations until they had about seventy, using, of course, all the stations belonging to the different societies which were already in operation. Here the children were examined and graded: "O," "A," "B," or "C," according to their condition as to nourishment, which is determined by a system of Professor Pirquet (called the "Pelidisi system"), and is based on the relation of the weight to the sitting height; the "O" children being above normal, and the "A" children normal or slightly below. Those marked "B" showed decided undernourishment, while the children graded "C" comprised all who fell below the "B" standard. These children were pitifully undernourished, practically all having rickets or tuberculosis.

After the general examination, the mother of each child received a certificate indicating the child's health class. If this were one of the categories rationed through the Friends' depot, the mother could obtain at the Mother Advice Station, where her child had been examined, a card, signed by the physician, which entitled her, on registering at the Friends' distribution depot named in the card, to draw four fortnightly food-packets for the child, or for herself, if she were nursing the child. Such ration cards, provided by the Friends and the Vienna Emergency Relief Fund,

*Hauptausschuss fuer Gesundheitliche Jugendpflege und Fuersorge is a committee composed of representatives of the various societies for Child Welfare in Vienna which was organized for the purpose of examining children and to determine which ones should receive food rations from the Vienna Emergency Relief and the Friends Mission.

Digitized by Google

were given out at the Mother Advice Stations of the Central Committee for presentation at the depots of the Friends' Mission only.

For gratis rations, supplied by the American Red Cross through the Friends' depots, the Friends issue special cards on which the gifts are credited to the "Amerikanisches Rotes Kreuz." The examining doctors give out gratis cards only when they are convinced that the mothers can not pay the small charge made at the depots, and after these cases are investigated by the visitors from the welfare center. This food consists of: 1 tin sweetened milk, 1 tin unsweetened milk, 40 dkg dried milk, ½ kg Kindermehl, ½ kg flour, 20 dkg cocoa, ¼ kg sugar, ¼ kg lard, ¼ kg soap, ½ kg rice. This ration has been worked out by experts in child-feeding who stated that for the children under this age-limit the packet was sufficient for two meals a day for fourteen days. Children weaned under one year received the same ration without cocoa or lard.

In January, 1921, Dr. Poerner found that the city could not support all the centers which had been established, and transferred to the Kriegspatenschaft (now called the Volkspatenschaft) fifteen of the stations. The Volkspatenschaft had now ceased to do family work and had become a distinctly child welfare organization.

When, in 1921, the American Red Cross decided on a child health program, it was thought that the best plan was to make use of the stations which were already established and to retain, when possible, the personnel operating them. It was also decided, with city and provincial authorities, that while the American Red Cross would be responsible for the plan of operation, the payment of the personnel and the provision of the medical supplies, the local authorities would furnish the buildings or rooms for the centers, and provide the heat and light. In conjunction with the American Red Cross they would choose the personnel, the American Red Cross reserving the right to refuse any undesirable selections.

The personnel was to be made of one (Austrian) medical supervisor for all Austria, one chief physician and one chief nurse for each province and for Vienna; for each station one doctor, one full-time nurse, one assistant nurse on part time, and a helper who would do the cleaning of the station.

A salary scale was also agreed upon, which, at present Austrian exchange, makes the cost of operation for each station considerably less than $1,000 per year, while at the same time paying somewhat more than the Austrian organization could do. The arrangement in regard to the number of stations in various parts of Austria was as follows: Vienna 41, Tyrol 8, Upper Austria 14, Styria 18, Salzburg 6, Carinthia 6.

Because of the lack of trained workers it was decided that a short practical course would be given in the care of infants and young children with the addition of a series of lectures on social subjects.

All nurses in charge of centers are required to take this course and the examinations which follow its completion. No one is retained who does not show an intelligent understanding of the purposes of the work and an aptitude for it.

The nurse in charge of the center is on full-time pay, and, except during the hours when the station is open for examination of children, or when she is engaged on necessary clerical work, spends her time in home visiting.

Her course of training has taught her what organizations to apply to for help in solving family problems, other than medical ones, and it is hoped that she will be of real service to the overworked and worried mothers.

Two of the three organizations have regular staff meetings for the discussion of their problems, and there is a general meeting of the forty-one home visitors once a month.

Counting on not more than ten children per hour, two consultation hours per day and twenty working days per month, we have on an average five hundred children for each station or a total of fifty thousand. We assume that the children throughout entire Austria fall into approximately the same classes as regards physical condition as those already examined in Vienna, and we vary the frequency of home visits with the condition of the child so that the various classes are visited with the frequency that their condition requires. We thus arrive at a total of about 180,000 visits to be made during the year. This number divided among the hundred stations gives us 1,800 visits per station per year, which can be handled by one worker in each station.

Digitized by Google

THE FARM WOMAN

At Last it has Been Discovered that the Farmer's Wife is as Important as the Farmer in the Movement of "Back to the Soil"

A REPORT issued within a year by the U. S. Department of Agriculture on "The Farm Woman's Problems," gives some insight into the heavy labor performed by farmers' wives in this country. This survey of Miss Florence Ward, in charge of Extension Work with Women in the South and West, if it does no more than give the subject publicity, will be most valuable. And her labors in the field of Home Demonstration Work are well known. If this country is to survive, the farms must be manned and "womaned" as well as stocked with high-grade cattle and pigs. The last census shows that the country has stepped over the line onto the wrong side. There are now more city dwellers than country dwellers, and we are in peril.

The Department of Agriculture, after devoting years to the improvement of crops and animals, has realized that even with electric power and modern methods farms cannot be run without man-power and woman-power. Therefore, the effort is being made to make farm life attractive to women, for men can never stay where their women-folk are discontented or unhappy. "I was born and raised on a farm," the man says, "and I liked it, but it was too hard work for my wife." So they move to town.

Sometimes it is the man's fault because he does not realize that while he is using tractors and electric milkers his wife is carrying water from a well and washing the family's clothes by hand. He also does not realize that the "hired girl" has pretty much vanished, but there is just as much housework to be done as there was before.

Some of the figures in the report are enlightening. In reading them it should be remembered that Pennsylvania is not included in this survey which comprised 10,000 farm homes in 241 counties in 33 Northern and Western States.

Says the report: "In industries where love and service are not the ruling motives, a walkout might be foreshadowed by conditions brought out in Table I, which shows that the average working day, summer and winter, for over 9,000 farm women is 11.3 hours, and that 87 percent of 8,773 women report no regular vacation during the year, although a large percent tell of scattered 'days off' in the family automobile."

From over 9,000 answers we learn further that 79 percent take care of kerosene lamps; 61 percent carry water an average distance of 39 feet; 96 percent do their own washing (family and household washing); 92 percent do their own sewing; 94 percent do the family baking.

The average farm woman has an 8-room house to keep clean and in winter besides the kitchen stove runs two other stoves. The report shows that 54 percent carry their own fuel. Much illness is the result of cold bedrooms in farm houses.

While 42 percent of the farms used power for farm machinery, only 15 percent of these had any house connection with the engine.

Running water drawn from a spigot was found in only 32 percent of the homes, and of these 65 percent have water in the kitchen only. Bathtubs are owned by 20 percent. Sewing machines are in use in 95 percent of the homes; screened doors and windows are found in 96 percent. So much for the Fly Campaign! The next thing should be a "Water in the Farm House Drive."

However, if the reader thinks that woman's work on the farm ends with the subjects mentioned above, a glance at Tables IV, V and VI will disabuse her mind.

Help with live stock is given by 25 percent; field work is done by 24 percent during an average period of six weeks; gardens are cared for by 56 percent. Farm accounts are kept by 32 percent; home accounts by 30 percent.

The dairy must not be overlooked; 36 percent milk and 88 percent wash pails; 65 percent wash separators; 60 percent make butter; 33 percent sell butter, but only 11 percent have the butter money.

Farm women care for poultry also; 81 percent care for an average of 90 hens, but only 22 percent have the proceeds.

The remoteness of farms is the subject of another table. The average distance from school is 1½ miles; from high school, 6 miles; from market, 5 miles; from doctor, 5; from hospital, 13; from nurse, 11.

Digitized by Google

Sixty-two percent allow family to use automobiles; 72 percent have telephones.

Over 6,000 answers were received to the questions on health, showing one member out of every eight partially incapacitated, and one member out of every thirty-three totally incapacitated.

Last, but not least, come farm children. There seem to be few of these—the most important farm accessory. Out of 7,467 reports the average was 1.18 under 10 years, and only 0.89 between 10 and 16 years. Over 2,000 failed to answer any questions about children, supposedly because they had none.

The survey suggests that the farm woman may be helped in three ways:

1. Introducing improved home equipment, running water and power being the most important.
2. Helping farm people to feed and care for their children more scientifically.
3. Cultivating the idea that investment in the comfort, beauty, health and efficiency of the farm home is a legitimate expenditure.

It is hoped that the wide distribution of such a survey will not only awaken dwellers on farms to the possibilities of improving the farm woman's lot, but that it will awaken others to the requirements of the farm woman, which must be heeded if the farms are to remain the bulwark of the nation.

The Passing Legions. By George Buchanan Fife. MacMillan, 1920.

Another history of the work of the Red Cross. This one gives a detailed account of the work of the American Red Cross in Great Britain. All these books will be historically valuable in the archives of Red Cross literature; but, just now, when the exhilaration of the War is over, and the incentive of Red Cross work at the front is ended, the books, no matter how well written, lack a present appeal.

The American Red Cross in the Great War. By Henry P. Davison. MacMillan, 1920.

When the War closed more than thirty million Americans were enrolled in Red Cross work. This book is an effort to summarize the work as a whole. Some of the workers were in foreign fields, but the greater part were working at home. To epitomize the work as a whole has been the aim and object of the author, who says in his foreword: "Indeed it may be accurately said that the book itself is a product of the American Red Cross."

The Story of the American Red Cross in Italy. By Chas. M. Bakewell. MacMillan, 1920.

The author frankly states this book does not purport to be a statistical account of the Red Cross activities in Italy. It is rather a report to the American Contributors to the Red Cross Fund of how their money was expended and the good it accomplished. The book is a résumé of war work with which we are all more or less familiar, and, while admirably told, and well-illustrated, comes as a belated message, and thus loses much of the interest which would have been given it had it appeared immediately after the end of the World War.

Eye, Ear, Nose, Throat Nursing. A. Edward Davis, M.D., and Beaman Douglas, M.D. Second edition. F. A. Davis & Co., publishers, 1920.

This book was written primarily for the use of nurses, but it is not without interest for the general practitioner. It is a careful and intelligent guide for the care of diseases of the eye, ear and throat, and gives full instruction to nurses as to their exact duties during and following operations on these organs. It should certainly form one of the text-books for all nurses who are called upon to treat cases of the eye, ear or throat.

Manual of Psychiatry. Edited by Aaron J. Rosanoff, M.D. Fifth edition. John Wiley & Sons, publishers, 1920.

The Manual is divided into three parts. The first deals with general psychiatry — causes, symptoms, methods of investigation, treatment and prevention of mental disorders. The second deals with special psychiatry with mental diseases individually. The third consists of appendicitis and technique of special diagnostic procedures. The subject of psychotherapy is of too great magnitude to be discussed in one book; but, so far as one book may explain and clarify the subject of mental diseases and their treatment by this method, this Manual is clear, concise and valuable to students of this school.

In the Comedy Relief section of the May issue of "The Bloodless Phlebotomist," a delightful satire, entitled "Too Late Now," by James Montague, gives a mirthful view of gland transplantation vs. euthanasia at sixty. This is only one of several worth-while features of this publication. J. Petrie Hoyle, M.D., the first American physician to serve in Flanders during the World War, contributes a very interesting article on war injuries, and the article on "Treatment of Inflammation of the Fallopian Tubes," by Dr. J. Sidney Eason, Coldwater, is well worth reading.

If you have not received this little journal, a request to the Denver Chemical Mfg. Co., New York City, will bring, without expense to you, the May number as well as future issues.

Digitized by Google

Abstracts

Diabetes and the Endocrine Glands.— Langdon Brown.* (British Medical Journal, August 7, 1920.)

The metabolism of the carbohydrates consists in their storage in the various tissues of the body in an insolable compound which can be readily rendered soluble and available for instant use. The storage of carbohydrates is accomplished by the constructive forces of the vagus or para sympathetic branch of the autonomous nervous system. The use of these stores of energy is under the control of the destructive or catabolic branch of the autonomous nervous system, called the sympathetic, which breaks down the complex into the simpler compound and liberates its energies. In the anabolic, constructive process, the pancreas plays a very important part. Its internal secretion acts upon the molecule of sugar like an amboceptor, and turns it into a larger colloid molecule, which does not pass the renal filter, and which is stored in the liver and muscles as glycogen. When the percentage of sugar in the blood reaches 0.1 percent, the pancreas normally converts the rest into storage compounds for future use. When the percentage of sugar in the blood falls below 0.1 percent, the sympathetic system breaks down the stored-up compounds and raises the sugar content of the blood, while using the energies liberated in this process. If the pancreas is unable to convert all the carbohydrates in the food into storage compounds, they cannot be kept out of the blood, and alimentary hyperglycemia will result, and alimentary glycosuria if there is a sufficient insufficiency of pancreatic functions. The sympathetic system is the great consumer of force used in maintaining the vital activities. It is aided in its functions by the secretions of the suprarenals, pituitary and thyroid. If this system becomes excessive in its demands for the energies stored up in carbohydrates, an excessive destruction of the fat and glycogen containing their potential energies may be made, an excessive mobilization of existing supplies and an inhibition of pancreatic ability to promote the conversion of sugars into glycogen. The pancreas may be normally able to perform its functions and be structurally intact, but if the force of the sympathetic prevents the action of the pancreas, glycosuria may result.

In cases of diabetes without sufficient structural changes in the pancreas to account for the inability of the pancreas to perform its glycogenic functions, the fault is not in the pancreas primarily, but in the inhibition of the sympathetic. This inhibition may come from hyperactivity of the suprarenals, pituitary or thyroid, or from irritability of the sympathetic tracts leading from the fore to the mid brain.

During the war many cases of intractable glycosuria were reported as caused by injuries of these tracts. The cases of advanced destruction of the pancreas without glycosuria may be explained by assuming a coincident lack of sympathetic influences, so that mobilization of the carbohydrates was also lessened. In this loss of converting power of the pancreas, whether primary or secondary to sympathetic inhibition, we see the conspicuous evidence of pancreatic failure as hyperglycemia and glycosuria. The use of pancreatic preparations would seem to be most logically indicated in diabetes since pancreatic insufficiency is the constant factor. It is perfectly possible for the pancreas to perform its external secretory functions normally while the inhibitory power of the sympathetic destroys this internal function. For this reason the tests for the sufficiency of the external secretions do not concern the sufficiency of the internal, constructive, transforming functions. It is possible that large doses must be used of pancreatic preparations and that at the same time we should seek out the cause of the excessive inhibition of pancreatic activities and the excessive mobilization of sugars.

Why are the suprarenals or the thyroid or the pituitary or the sympathetic system as a whole so overactive, and what can be done to overcome this activity? What will prove to be the greatest antagonist to sympathetic irritability? Opium, chloral hydrate, and other sympathetic sedatives should some day be intelligently replaced by organotherapy, and the first step in this direction is the use of vagus stimulants and pancreatic preparations.

The Treatment of Bronchial Asthma.— Curschmann. (Muenchener m. Wochenschrift, March 11, 1921.)

The treatment of asthma should not be confined to relieving the attack, but should especially be directed towards overcoming the fundamental cause. In children, asthma usually develops out of a neuro-

Digitized by Google

pathic vagotonic constitution which is easily irritated by infections, anaphylactic insults, endocrine disturbances, climactic changes, etc. A diet restricted in meat and salt, carefully graded physical and psychical exercises may markedly improve the vaso-motor conditions just as the training of troops often relieves migraine and other vaso-motor disturbances. Gynecological conditions are a common factor. Thus asthma is apt to develop in chlorosis, amenorrhœ, dysmenorrhœa, at the menopause, at the menstrual period, etc. Dysthyroidism, hyperthyroidism, disturbances of the parathyroid functions resulting in "broncho-tetany," are possible factors; changes in the thymus and pituitary functions should also be considered. The asthma associated with ovarian insufficiency such as occurs at the menopause, menstruation, etc., should be treated with ovarian preparations. (In pituitary and thyroid insufficiency they should be combined with ovarian therapy.) Calcium should be used with parathyroid therapy, iron and arsenic with chlorosis, etc. Anaphylactic factors such as eggs, milk, clams, etc., should be determined, and all sources of reflex nasal irritation excluded. Sexual stimuli should be studied and psychotherapy may be needed. (The effect of sexual stimuli upon the nasal circulation should be determined.) All irritable foci in the nose and throat should be removed. Gastro-intestinal and gynecological faults corrected. Change of climate, especially from a lower to a higher, and from the sea to inland regions is a very helpful remedy. When the asthma is dry, iodin (or thyroid) is indicated. When there is much secretion, calcium and parathyroid therapy, atropin is very useful. When there is broncho-tetany, and spasm of the bronchi, diuretin on account of its broncho-dilating action is good. It should be given several times a day and especially towards evening, in doses of 0.5 to 1.0 gram. To cut short the attack, morphin may be used, but in chronic cases this is dangerous. Adrenalin, either alone or with pituitary, by spray or by subcutaneous injections is probably the best remedy we have. For a spray take (1) adrenalin, (2) atropin sulf. 0.01, cocain muriat. 0.25, aq. dest. 10.00. Use 18 drops of (1) and from 2 to 5 drops of (2) in a small atomizer. In some cases pituitary works better alone than with adrenalin. Inhalation of the fumes from this mixture may give great relief. Fol. stramonii kal. nitr. at 30, finely pulverized. Burn a teaspoonful upon a plate and inhale the fumes. Begin the treatment of a case with inhalations; then try antipyrin 0.8, caffein sodium-salicyl 0.2; one powder at the commencement of the attack. Nitrites and atropin are not apt to help. Next try adrenalin with or without pituitary, and only as a last resort use opiates. Slow, weak inspiration and forceful exspiration helps to prevent the accumulation of air in the lung, as does slow, steady counting.

Tuberculosis and Pregnancy. — Ritz. (La Presse Medicale, March 26, 1921.)

It is generally admitted that pregnancy aggravates tuberculosis, but just when this aggravation begins is disputed. As a rule, it is supposed to be most conspicuously exerted after delivery and during the puerperium, but Ritz thinks differently and is inclined to believe that the beginning of the effects may begin with pregnancy. Often the manifestation of tuberculosis coincides with the beginning of pregnancy, and it is even possible that conception may in some way influence the extension of hitherto latent tuberculous processes. Nobecourt and Paraf have shown that pregnancy entails a loss of immunity against tuberculosis, just such a loss as follows measles and other acute infections. This loss is also analogous to that observed in various conditions of ovarian insufficiency such as is found in puberty, at the menstrual period, during pregnancy and the menopause, in cystic tumors of the ovary, etc. Coulaud thinks that the hyperthyroidism which is so apt to follow ovarian insufficiency as a compensatory process is associated with this loss of immunity. Pregnancy aggravates tuberculous processes, and this aggravation may be manifested at any time during pregnancy and in a very serious manner. Tuberculous girls should not marry, and tuberculous wives should not have children.

Ovarian Insufficiency and Zoophilia.— Laignel-Lavastine. (La Presse Medicale, March 26, 1921.)

Laignel-Lavastine presented before the Society of Psychiatry a woman who, with very little means for her own support, deprived herself of everything in order to feed her pet animals, birds, cats, guinea pigs, etc., for which she had an abnormal fondness. The patient presented many signs of ovarian insufficiency. Meige remarked that zoophilia became a pathologi-

Digitized by Google

cal condition when animals were preferred to human beings, and the patients became indifferent to their own kind. Hartenberg suggested that zoophilia is the appanage of old maids, and represents the sentiment which has never been satisfactorily gratified by sexual existence. Laignel-Lavastine replied that this case had never had a normal sex existence because the ovarian insufficiency had been associated with frigidity.

Recent Progress in Anatomy, Physiology and Pathology of Childhood. Holmes reviews the literature. Of syphilis he summarizes:

The subject of prenatal syphilis is considered by Kolmer (Kolmer, J.A., Prenatal Syphilis, with a plea for its Study and Prevention, Am. J. Dis. Child. 19:344, May, 1920). He cites Vedder's estimate that from 10 to 28 percent of men from class of unskilled labor and the trades, varying in age from 18 to 40 years, are syphilitic, as well as 10 percent of men of better education. He also states that among presumably healthy young women the percentage of syphilitic infections fluctuates between 2 and 20 percent, depending on age, marital conditions, education and social status. The incidence in negroes is estimated to be at least double the figure for whites.

Probably one miscarriage out of every ten involves a syphilitic individual. According to Jeans (Jeans, P.C.: Cerebral Involvement in Hereditary Syphilis, Am. J. Dis. Child. 18:173, Sept. 1919), at least 75 percent of the offspring of syphilitic families are infected. Thirty percent of the pregnancies terminate in death at or before term. Moreover, among syphilitic children the death rate is given about double the normal, i. e., 30 percent. It is estimated that only about 17 percent of all pregnancies in syphilitic families result in living non-syphilitic children that survive the period of infancy.

It is found that from 2 to 6 percent of hospital and dispensary children give a positive Wassermann reaction, with higher percentages among backward, mentally deficient and sick children. Kolmer says it would seem safe to assume 5 percent of syphilis in the infant population, so far as detectable.

Venereal Disease and Mental Deficiency (in England). "In Staffordshire Dr. A. G. Wilkins has investigated nearly 600 cases of mental deficiency. It must not be forgotten, he urges in his annual report, that the number of mental defectives is likely to increase owing to the spread of venereal disease throughout the country. This national calamity is shown by the sudden rise in infant mortality attributed to syphilis in 1917 and the greatly increased number of notifications of gonorrheal ophthalmia in 1919 as compared with 1918. Our medical staff have made some preliminary inquiries into the relation between mental deficiency and venereal disease, and find no reason to doubt the essential accuracy of Dr. Mott's statement that there is some relationship, and that as much as 8 per cent of mental defectives give a positive Wasserman reaction.'

"We are informed that Dr. Edith M. Guest has examined the records of 41,719 Staffordshire children of age group 12-13, and found that of a group of 44 diagnosed as syphilitic 4.5 percent were also mentally defective, whereas of the remainder only 0.4 percent.

"Further evidence is given by Capt. A. F. Wright, Venereal Disease Officer to the Staffordshire County Council, who examined the blood of fifty mentally defective school children in Sedgley and Willenhall, and reported that 36 percent showed traces of syphilis, half of which had been diagnosed as 'word blind,' while 25 percent were certainly syphilitic." (Editorial, Public Health Administration, Municipal Engineering and the Sanitary Record, London, July 28, 1921.)

Syphilis in the Third and Fourth Generation. J. Audrain publishes in the Bulletin of the French Société de Dermatologie, Feb. 10, 1921, p. 85, the tabulated details of thirty families through three of four generations from a progenitor with unsuspected syphilis. Comparing the different families and generations confirms the law of persistent localization of the lesions and their periodicity, and the rarity of pain in them; also a peculiar moral and physical energy, a functional excitation which may be felt in all the organic systems and even in the exaggeration of the appetite and of the "ego."

Digitized by Google

Cases of Still-Birth (in Glasgow). In the Glasgow health report of the years 1914-1919, Dr. A. K. Chalmers, M.O.H., includes the results of an inquiry extending from 1917 to 1920 into the causes of still-birth as shown by the examination of the fœtus at the municipal laboratories. The work has been carried on under the supervision of Dr. R. M. Buchanan. . . . The apparent age of the fœtuses examined varied from 4 months to 9 months, rather more than half of the 255 examined being within a fortnight of the latter age. The proportion of cases in this series in which syphilis was undoubtedly the cause of death is certainly smaller than anticipated, for the number found was only 13 out of 255, or approximately 5 percent. It should be noted, however, that the dark ground method of examination for spirocheta pallida was not employed in the first 49 examined; had it been so the percentage would probably have been somewhat higher, for in the remainder of the series the percentage works out at 6.5. It was also observed that the presence of syphilis could be demonstrated in a relatively large number of fœtuses in the earlier miscarriages, so that had it been possible to obtain specimens at earlier dates than those included in the series the proportion might have been still further increased. (Notes and Comments, The Medical Officer, London, July 2, 1921.)

Pernicious Anemia. Levine and Ladd find that of 141 cases of pernicious anemia only six were positive when tested by the Wassermann reaction. The average incidence of a positive Wassermann reaction in all medical admissions to this hospital (Johns Hopkins Hospital) is about 12 per cent—making the incidence among these cases one-third of the average. Antisyphilitic treatment has had no effect upon the course of the disease. The conclusion is warranted that in these cases syphilis has borne very little relation to the development of pernicious anemia. (Samuel A. Levine and William S. Ladd, Bulletin of the Johns Hopkins Hospital, Aug., 1921.)

Case of Heart-Block Due to Gumma. A Wassermann test proved very strongly positive. Finally "a provisional diagnosis of gumma of the heart . . . was arrived at, and the patient put upon iodide and inunctions of mercury, but without benefit. The signs of cardiac failure increased, fluid accumulated at the lung bases, the liver and spleen became enlarged, breathlessness increased, cough became troublesome, accompanied by blood-stained frothy sputum. The blood pressure fell to 97 systolic, 44 diastolic. The pulse rate varied between 24 and 32. The patient complained of great weariness and thirst, and death occurred eighteen days from the sudden onset of symptoms."

Post-mortem confirmed the diagnosis, although the actual presence of treponema pallidum was not demonstrated. (R. L. Girdwood, Medical Journal of South Africa, May, 1921.)

The Control of Hemorrhage

In cases of hemorrhage not amenable to surgical procedure the chief aim is to promote blood-coagulability. Hemostatic Serum, it is believed, affords the most effective means for the attainment of the desired object. In fact, it has been said upon good authority that Hemostatic Serum is the only product which provides all of the factors essential to furthering coagulability of the blood.

Severe hemorrhages, due to defective blood-coagulation, may result from an actual deficiency in prothrombin, or from an excess of antithrombin: Hemostatic Serum is indicated in either event. It will supply any deficiency in prothrombin or thrombokinase, besides counteracting excessive antithrombin.

Hemostatic Serum may be administered systemically by hypodermic or intravenous injection, in 2 c.c. doses, repeated every two to four hours, as the urgency of the case may require. A small pledget of cotton saturated with a few drops of Hemostatic Serum may be applied to the bleeding point. If the patient is a hemophiliac, or is likely to have prolonged or profuse bleeding, the intravenous use of Hemostatic Serum as a prophylactic measure before any surgical operation is attempted seems to be indicated.

Building Up After Typhoid.

In some instances following typhoid fever, convalescence is protracted, the patient recovering strength very slowly.

Many practitioners have found in such cases that a palatable preparation of cod liver oil is of more than ordinary value in restoring the patient to a normal state of health. When a cod liver oil preparation is indicated and due heed must be paid to palatability, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will be found to meet every indication.

For this reason Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is the choice of a large part of the profession when prescribing a cod liver oil product. It is extremely palatable and may be depended upon to produce the usual effects of the plain oil.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

OVER THERE

The work being done by American women physicians and members of their respective units in Europe, under the auspices of the American Women's Hospitals, the service committee of the Medical Women's National Association is of such proportions and of such vital and significant character in the reshaping of the countries in which they are located as to make we, who learn of it—through reports from there—thrill with pride and thankfulness that medical women can and are playing so great a role in the world's history.

Dr. Lovejoy, in the splendid report elsewhere in this issue, brings us—through her vivid pen—very close to the heart of this work, of this great drama being enacted "over there," where centuries of tragedy and oppression have laid the groundwork of much of the misery now made acute by the great war. She fills us with a keen desire to help these self-sacrificing devoted women who are giving themselves without stint to these miserable remnants of an oppressed nation.

Let us give of our money—of our interest, we who are here in this land of plenty and joy. Send **now** your check to keep this work going on—this great human cry of woe and suffering must reach your ear—and your purse. Give and give liberally, and give **now.** The committee cannot go on without money—they must look to you—and to you only—for it. Can you have on your conscience the fact that perhaps because of you not giving—and others like you—you may prevent this work being carried on? Send Dr. Lovejoy a check now for use over there.

IMPORTANT!

If you are going to the St. Louis Convention, and wish to be comfortably and conveniently housed during the convention, send in your name **at once** to Dr. L. Rosa H. Gantt, Sec'y-Treas., Spartanburg, S. C.

The Hotel Statler is holding reservations for Dr. Gantt, on condition that names of occupants of rooms are sent in immediately.

Children's Week in Mexico Commemorates Centennial of Mexican Independence

For the recent celebration of the 100th anniversary of its independence Mexico organized a Children's Week, held September 11-17th, as a result of which public interest in child welfare was greatly stimulated. The U. S. Department of Labor, through the Children's Bureau, has received a program of the "Week" and other information concerning the various activities connected with it. Miss Helen Bowyer, a citizen of the United States, who had been engaged in child welfare work in this country, was executive secretary of Children's Week, which was held under the auspices of the Mexican Department of Health, of which Dr. Alfonso Pruneda is Secretary-General. Miss Bowyer secured the co-operation of a number of agencies in this country, obtaining from them material which could be adapted to Mexican use. A United States Children's Bureau pamphlet, "Prenatal Care," of which over 800,000 copies have been distributed in this country, was translated into Spanish, under the direction of the Mexican Health Department, and so great was the demand that the supply was soon exhausted.

The public interest in the celebration was so great that it is hoped that funds can be obtained for more comprehensive child welfar work than has hitherto been undertaken in Mexico.

Digitized by Google

SEVEN TRUTHS TO TEACH A CHILD IN REGARD TO LIFE AND SEX

CHARLOTTE ABBEY, M.D.,
Philadelphia, Pa.

"The one who tries to guide a child aright, helps to bring the Kingdom of God on earth."

I

I am a Soul and Thinker because I know right from wrong. I live in this Body, that my parents have given me, and I am here for the purpose of helping to make the world happier.

II

Jesus told us to love God and think of others as much as we do of ourselves; when I live a kind and useful life I obey this Law and bring happiness on earth instead of misery.

III

Through making myself live a kind and useful life, I will be able, when I grow up, to use my vote in helping my country instead of destroying it, for God helps those who help themselves through "thought for others."

IV

Smoking deadens the nerves, and tea, coffee and liquor excite them; therefore, if I take these things before my body has attained to full growth, I injure my nerves.

V

When we grow to be men and women, God intends us to be Fathers and Mothers. So we have to hold the Bodily functions of life sacred to the purpose for which each is created—then when we marry, children will be born strong and healthy, instead of diseased and feeble-minded.

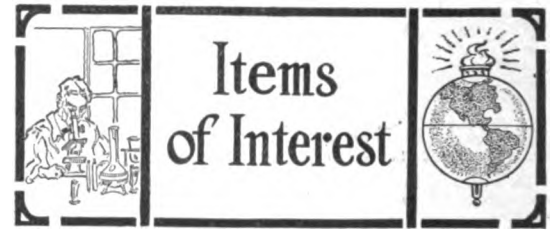
VI

It is not my fault when wrong thoughts come into my mind, but it is my fault when I go on thinking them. Temptations when resisted strengthen our will power for good.

VII

My Body is like a Factory, because the Life within it changes the food which I eat into blood and gives off waste material.

At twelve years of age, if I am trying to live a kind and useful life, my brain, with its nervous system, will become stronger, because as I grow older I need a strong brain to think with; but if I do not live a kind and useful life, and do not hold the bodily functions of Life sacred to the purpose for which each is intended, I will give off with the waste material that which is intended to make my brain and body more perfect.



School for Tuberculous Children.—School children in Minneapolis who are tuberculous will receive medical treatment and their education at the same time, as the result of the establishment of Lymanhurst Hospital School. According to a statement of the city health commissioner, this is the first school to be provided for educating tuberculous children barred from the public schools by State laws.

Woman in Medical Chair.—The London University senate has appointed Dr. Louise McElroy to the chair of obstetrics and gynecology at the London School of Medicine for Women. Dr. McElroy was educated at the universities of Glasgow, London, Berlin, Vienna and Paris. She was surgeon in charge of the Scottish Women's Hospital at Saloniki and Belgrade from 1915-1919; since then she has been gynecologic specialist in the Eighty-Second General Hospital, Constantinople.

British Expedition to Study Sleeping Sickness.—It is reported that the Colonial Office of Great Britain is organizing an expedition for research on the serotherapy of sleeping sickness in Africa. The research is to include both men and animals, and plans for a two-years' stay. The expedition is in charge of Drs. Marshall and Bassolo of the Uganda public health service, with two assistant physicians and two veterinarians.

Dr. James Craig Potter, of the Johns Hopkins Hospital staff, has just returned from Guatemala, after having completed a survey of that country, to determine whether medical missionary work among the natives, similar to that done by Dr. Wilfred T. Grenfell in Labrador, was possible. Dr. Potter reports that there is an immense field and need for it, far greater than on the coast of Labrador, where he worked with Dr. Grenfell in the summer of 1920. The survey was made at the request of W. C. Townsend, in charge of the San Antonio Mission Station in Guatemala.

Hartley Foundation.—Public health, mental hygiene and probation work, not only in Connecticut, but also in other States, are the purposes announced by the Hartley Foundation, which was recently granted a special charter by the Connecticut Legislature. The foundation held its first meeting, July 19th, at Norfolk, and the founder, Mrs. Helen Hartley Jenkins, New York, was chosen president, and her attorney, Robbins B. Stoeckel, Norfolk, secretary-treasurer. Dr. Samuel A. Brown, dean of Belle-

Digitized by Google

vue Hospital Medical College, was made a member of the executive committee. The foundation was established in memory of Mrs. Jenkins' father, the late Marcellus Hartley, former head of the Remington Arms Union Metallic Cartridge Co., and the funds made available by Mrs. Jenkins are said to total several millions. The public health department of the corporation will put its facilities at the disposal of the State or any subdivision of it in case of epidemics or other emergencies. It will carry on mental hygiene work in connection with prisons, reformatories and other institutions.

Twenty inmates of the woman's department of San Juentin Prison have earned the badges of the Red Cross Aid. They have pledged themselves to serve 200 hours of the year, 4 hours a week, for the Red Cross. The work, which consists of sewing on children's clothes, etc., is supervised by a woman who is serving a life sentence for murder.

According to reports received by the Illinois State Department of Public Health, diphtheria has been more prevalent thus far in 1921 than for the same period during any previous year since 1917. For the first eight months of this year 9,424 cases were reported compared with 5,068, 4,769 and 5,751 for the same months in 1918, 1919 and 1920 respectively. Each month of the year has uniformally shown a greater incidence than corresponding months in other years noted, and incomplete reports for October indicate that the same thing will be true for that month.

A law for the protection of children of unmarried parents went into effect in Ontario on July 1, 1921. The province assumes responsibility for the establishment of paternity of the child born out of wedlock, and holds every father so found responsibile for the maintenance of the child and for the expenses of childbirth. The mother must also assume her fair share of responsibility. Another act legitimatizes all children born out of wedlock upon the subsequent marriage of the parents to each other.

The American Committee for Relief in Ireland has administered approximately a million dollars in emergency relief, with which some 50,000 people have been aided. This amount has been spent in relieving conditions due to the destruction of homes, shops and factories, the imprisonment of wage-earners, etc. Nothing has been done in the way of reconstruction, which in the case of the co-operative creameries alone will probably require a million dollars. The necessity for such reconstruction is pressing. Not only did these creameries furnish employment for thousands, but their present idleness will compel the farmers to sell their cows and thus lead to a shortage of milk, with consequent suffering on the part of thousands of the poor and their children. The city of Dublin, which has been feeding 5,000 school children, found it necessary to abandon the meals during the summer in order to be able to resume them when school reopened. The commission provided $4,000 to assist in this work.

Conference of Assistants in Roentgen Laboratories.—A congress of women working in roentgen laboratories was held last month at Berlin.

DIED

Edith Eareckson, M.D., one of the early woman physicians of Baltimore, died in September, 1921. Death followed an illness of several months, from complications. Dr. Eareckson was 55 years old, was born in Baltimore, and a daughter of the late Dr. Edwin and Martha A. Eareckson. She was educated in the local public schools, later graduating from the Eastern High School, after which she took up courses in two local private schools. She then entered the former Woman's Medical College, on McCulloh Street, where she took her degree in medicine. Dr. Eareckson was a member of the National Medical Society of the United States, the Medical and Chirurgical Faculty of Maryland and numerous other medical societies.

Sarah H. Perry, M.D., Rochester, N. Y.; University of Buffalo, 1882; died, September 9th, following a lingering illness; aged 74.

Mabelle Mathison Rankine, M.D., Brooklyn; New York Medical College and Hospital for Women, New York, 1882; member of the Kings County Medical Society; died in Tappan, N. Y., September 26th.

Marian A. Dale, M.D., New York; New York Medical College and Hospital for Women, New York, 1884; died at Mt. Vernon, N. Y., September 17; aged 72.

Mariette Marsh Armstrong, M.D., Seattle; University of Oregon, Portland, 1987; specialized in gynecology; died, September 24th, aged 58.

Helen Lenox Murray, M.D., South Bend, Ind.; Indiana Medical College, School of Medicine of Purdue University, Indianapolis, 1906; died October 6th, from inhaling gas and severing an artery in her wrist; aged 51.

An Exceptional Blood-Coagulant

A rather ingenious improvement in the composition of blood-coagulants is to be found in Hemostatic Serum. This serum contains not only prothrombin and thrombokinase, two ferments essential to normal clotting, but also a third substance — antiantithrombin—which neutralizes the antithrombin of the blood.

Antiantithrombin is derived from the blood of animals by a process similar to that of producing antitoxin by the injection of toxin. The rationale of the inclusion of this substance in the formula of Hemostatic Serum is that faulty coagulation may result from an actual or relative excess of antithrombin as well as from a deficiency in prothrombin or thrombokinase.

Hemostatic Serum seems to provide for all the etiologic factors that may be at the bottom of slow coagulation. In actual practice it performs the promise that its formula implies. The dose is 2 cc, subcutaneously or intravenously, repeated every six hours if necessary. In cases of hemaphilia, the manufacturers advise larger doses—5 cc intravenously. In cases in which the bleeding point is accessible, Hemostatic Serum may be applied topically with gratifying results.

Digitized by Google

The Bronchitis of Elderly People

Many persons of middle or advanced age suffer each fall and winter in an annoying degree with a chronic bronchial inflammation. In addition to the cough, there is a considerable secretion of mucous which must be expectorated from time to time.

It has been found that Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is of high value in the management of this chronic bronchial condition by reason of its potent corrective and sedative influence upon the bronchial mucosa.

Ordinarily the attacks become more urgent with the onset of cold weather, and it is advisable to anticipate this increased involvment of the mucosa by putting the patient on Hagee's Cordial of the Extract of Cod Liver Oil Compound before the weather becomes severe.

In most instances, the employment of this cod liver oil product will do much toward ameliorating the marked bronchial irritation of these elderly persons.

Cod Liver Oil For Run-Down Women

Many careful clinicians have found that cod liver oil is a most excellent blood-maker in cases of lowered vitality so frequently found among women. Of course, the use of plain oil is objectionable by reason of its unpalatable taste, but when Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is used, this objection no longer holds. Hagee's Cordial in these cases of reduced vitality is easily assimilated and exerts a most beneficial influence on the blood stream, increasing materially the essential elements of the blood. The appetite increases, bodily strength is augmented, and the patient becomes better fitted to perform her daily tasks. The advantage of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) for the purpose lies in its exceptional palatability. In addition to being palatable, it is thoroughly effective therapeutically, being everything that the plain oil is, except disagreeable. It may be continued for long periods without causing distress.

A New Preparation of the Vitamines.

Everybody is talking about the vitamines, and it is the almost daily experience of the practitioner to be called upon to explain the nature of these curious and mysterious substances and their relationship to the welfare of the human body. It is quite possible that even some physicians are not aware that there is but one available preparation that contains the three known vitamines, the preparations most popular just now containing only one, the antineuritic vitamine or water-soluble B.

Recently Parke, Davis & Co. announced the development in their Research Laboratories of a physiologically tested product containing the three vitamines. This preparation, called Metagen, is supplied only for the use of physicians, in the form of capsules of 5 grains each of the powder.

Metagen contains (1) the fat-soluble vitamine "A" found in the fresh milk and butter of healthy cattle, in cod-liver oil and some plants; (2) the water-soluble vitamine "B," which exists in yeast, nuts, and the husk and germ of grains; and (3) the water-soluble "C," the chief source of which is the citrus fruits—oranges, limes, etc., and certain vegetables.

It is a well-established fact that each of the three types of vitamine, fat-soluble A, water-soluble B and water-soluble C, plays a specific role in nutrition. To insure normal physiologic function, all three must be present in the body. The absence of one or more is in all probability the cause of the various deficiency diseases. Thus, a lack of the fat-soluble A vitamine is apparently the cause of rickets, pellagra, and dental caries, in the latter case associated with a deficiency of the calcium salts. The absence of the water-soluble B is responsible for the appearance of polyneuritis or the beriberi of the Orient, and for failure of growth in artificially fed infants. The water-soluble C vitamine is essentially antiscorbutic, and its absence from the dietary, as of sailors on long voyages, is responsible for the appearance of scurvy among the crew, and for infantile scurvy as well.

As the vitamines are not harmful, it is manifestly better in the treatment of deficiency diseases to prescribe a preparation in which all of them are present, rather than to risk failure by the use of a single vitamine. The same may be said of the treatment of convalescence from acute illness, in which the aid of the vitamines is invaluable in stimulating the nutritive processes.

The field for the use of Metagen is very wide. One has only to consider briefly the fact that a large proportion of the dietary of most town and city dwellers is in all probability lacking in vitamines. This is an age of canned foods, polished rice, artificial butter, condensed milk, white flour and other refinements of our twentieth-century civilization, all of which make for convenience, perhaps, but their general use presents a problem in nutrition that the physician is often called upon to solve. With the help of the three vitamines in Metagen his task should be materially simplified.

Novatophan (Improved).

Announcement is made by Schering & Glatz, Inc., that original Novatophan, "the tasteless atophan for hypersensitive patients," in a modified and improved form, is now available.

Physicians who are not promptly and satisfactorily served through the drug trade are requested to obtain their supplies direct from Schering & Glatz, Inc., 150 Maiden Lane, New York.

Cod Liver Oil in Summer Time.

One of the disadvantages attaching to the use of plain cod liver oil in the hot months is the increased difficulty of digesting and continuing it for long periods.

Any preparation of cod liver oil which, by reason of its palatability and decreased fat content, obviates this objectionable feature of the plain oil, at once takes a high rank among cod liver oil preparations.

Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is such a preparation. By reason of its palatability and lack of obnoxious features inherent in the plain oil. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) may be continued during the heated term without giving rise to gastric annoyance or creating an aversion against it.

It contains the desirable, reconstructive qualities of the plain oil and may be depended upon to produce the same therapeutic effects.

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 11

November, 1921

$3 per year in advance
Single Copies, 25 cents

A COMPARATIVE STUDY OF THE BIRTH MORTALITY IN THE ALBINO RAT AND IN MAN*

By HELEN DEAN KING

The Wistar Institute of Anatomy and Biology

LITERATURE dealing with birth statistics for man contains numerous references both to the number and sex of the stillborn; but in none of this literature, nor in any of the many works covering various phases of animal breeding, is there any detailed information regarding birth mortality in other mammals. It has seemed worth while, therefore, to record the data for stillbirths in the albino rat that have been collected in the course of an extensive series of breeding experiments carried on in the animal colony of the Wistar Institute of Anatomy and Biology. Life processes in the rat accord in many ways with those for man, as Donaldson ('06, '08, '18) has pointed out, and the data given in the present paper indicate that here is also a close agreement in their normal sex ratio, in their birth mortality, and in the sex proportions of the stillborn.

The collection of data regarding the birth mortality in the albino rat was begun June 1, 1913, and carried on uninterruptedly for four years; it was resumed the beginning of June, 1918, and discontinued June 1, 1919. In any investigation of this character it is essential that all of the individuals in a given litter should be recorded, if the data are to have much statistical value. This necessitates, in the case of the rat, an examination of the litters at birth, or shortly after, since stillborn young left for a longer time in the nest are sometimes destroyed. While it is known that the data for the great majority of litters included in this study are complete, there is a probability that some of the stillborn young were omitted from the records, since all litters could not be examined at or close to the time of birth. The magnitude of the probable error is not great enough, however, to affect the general conclusions that have been drawn, though more exact data might change somewhat the various percentages given.

Normally, young rats begin suckling soon after their birth, and as at this time and for some days afterward the skin over the abdomen is semi-transparent, any milk in the intestinal tract is readily seen and is a sure indication that the individual was alive when born. There is, therefore, no difficulty in distinguishing the stillborn individuals from those that died later, even though the litter is not examined until a day or two after it is cast. Throughout this paper the word "stillborn" is applied only to young rats that lived through the gestation period (twenty-one to twenty-three days) and died shortly before or during birth, and the mortality data given are for such individuals only. Only a very few cases of abortion have been found in the course of breeding experiments with the rat extending over a period of eleven years and comprising many thousands of individuals; none of these are included in the present study.

The Normal Percentage of Stillbirths

During the period in which the birth mortality statistics for the albino rat were being collected, a total of 253 litters were found in which one or more individuals were stillborn. Data for these litters, arranged according to the year in which the records were taken, are given in Table 1.

The data given in Table 1 show that there was considerable variation in the number of stillbirths occurring in different years. Such variation was to be expected, since the total litter production in the colony varied greatly from year to year (Table 2). The percentage of stillbirths in the total number of individuals involved, however, is remarkably constant for all sets of data, as the range of variation is from 20 to 26.2 percent only (Table 1). Since in each year that records were taken at least one-fifth of the young in a con-

*Reprinted by request from "The Anatomical Record," Vol. 20, No. 4, March, 1921.

[Author's abstract of this paper issued by the Bibliographic Service, December 27th.]

Digitized by Google

siderable number of litters were dead at birth, it is evident that the mortality was not due to chance, but to some disturbance in the metabolism of the mother that tended to involve the litter as a whole.

In order to show the normal percentage of stillbirths in the entire colony, data for the total litter production during the period that the mortality records were taken are given in Table 2.

TABLE 1

Data for living and for stillborn young in 253 litters of albino rats. Groups arranged according to the year in which the records were taken.

Year	Number of Litters	Total Number of Young	Living Young			Stillborn Young			
			Males	Females	Number of males to 100 females	Males	Females	Number of males to 100 females	Per cent stillborn in total number of young
1913–1914...	29	225	81	99	81.8	25	20	125.0	20.0
1914–1915...	78	570	222	225	98.7	70	53	132.1	21.6
1915–1916...	35	289	121	104	116.3	36	28	128.6	22.1
1916–1917...	51	339	135	115	117.4	48	41	117.1	26.2
1918–1919...	60	394	152	148	102.8	55	39	141.0	23.8
	253	1,817	711	691	102.9	234	181	129.3	22 8

TABLE 2

Showing the total number of individuals, including the stillborn, that were produced in a colony of albino rats during a period of five years.

Year	Total Number of Litters	Total Number of Individuals	Males	Females	Number of Males to 100 Females	Number of Stillborn	Per Cent Stillborn
1913–1914	899	6,677	3,379	3,298	102.5	45	0.67
1914–1915	945	7,065	3,690	3,375	109.3	123	1.74
1915–1916	828	6,443	3,273	3,170	103.2	64	0.99
1916–1917	1,023	7,131	3,597	3,534	101.8	89	1.25
1918–1919	625	4,354	2,217	2,137	103.7	94	2.16
	4,320	31,670	16,156	15,514	104.1	415	1.31

As Table 2 shows, from 600 to 1,000 litters of albino rats were born each year during the period covered by the investigation. The percentage of stillbirths in the total litter production varied considerably in different years, and for the 31,670 births was 1.31 percent. Assuming, for reasons to be given later, that at most only 8 per cent of the stillbirths that occurred were not recorded, it would appear that the normal birth mortality in the colony, under existing conditions of environment and of nutrition, was not greater than 2 percent.

During the past seventy-five years an extensive literature has appeared dealing with the birth statistics for man in various countries of the world. From the data given in this literature, Nichols ('07) has compiled a table showing the living and the stillbirths throughout the world during the period from 1751 to 1903. In the enormous total of 447,019,579 births recorded, 13,635,986, or 3.04 percent, were stillbirths. From a statistical standpoint the various sets of data used by Nichols are not of uniform value, since the laws regarding the registration of births vary greatly not only in different countries, but in different sections of the same country (as in the United States), and therefore many of the records are known to be incomplete. The records of stillbirths, especially, are very faulty, partly because in many countries their registration is not required and partly

Digitized by Google

because the data obtained include fetuses aborted at various stages of gestation. With reference to human births, it may be noted, the word "stillborn" is used to designate fetuses that are at least seven months of age when born; fetuses aborted at earlier stage of development are not ordinarily included in birth statistics.

More recent series of statistics show a birth mortality for man varying but slightly from that given by Nichols. Thus Auerbach ('12) states that in over 100,000 births as registered in Budapest, 3.3 percent were stillbirths, and Terry ('17) has shown that in a total of 449,744 births recorded in Massachusetts during 1910 to 1914 there were 15,911, or 3.2 percent. of stillbirths.

In certain countries in which the laws regarding the registration of births are relatively strict, the percentage of stillbirths is somewhat higher than that given by Nichols. For example, statistics for Prussia during the period from 1872 to 1881 show, according to Düsing ('84), that the stillbirths formed 4.67 percent of the total of 10,577,478 births; birth statistics for the United States during 1918 show 3.56 percent of stillbirths in a total of 1,412,283 births (Davis, '20).

The data for human births in one year in selected cities of the United States, as collected by the Children's Bureau of the U. S. Department of Labor, form a unique and valuable series (Duke, '15; Duncan and Duke, '17; Allen, '19; Dempsey, '19). Although the number of births recorded is very small when contrasted with the large numbers given above, the great care taken to make these records as complete as possible gives to the data great statistical value.

Birth statistics for four selected cities, as collected by the Children's Bureau, are given in Table 3.

TABLE 3

Summary of human births in one year based on data collected by the U. S. Children's Bureau in selected cities of the United States. 1, Brockton, Mass.; 2, Johnstown, Pa.; 3, Manchester, N. H.; 4, Saginaw, Mich.[1]

	Total Number of Births	Number of Males to 100 Females	Living Young				Stillborn Young				
			Number of individuals	Males	Females	Number of males to 100 females	Number of individuals	Male	Female	Number of males to 100 females	Per cent stillborn in total number of young
1	1,247	105.77	1,210	623	587	106.13	37	18	19	94.73	2.96
2	1,551	110.16	1,463	761	702	108.40	88	52	36	144.44	5.67
3	1,643	101.10	1,564	781	783	99.74	79	45	34	132.35	4.80
		107.99	981	507	474	106.92	34	20	14	142.85	3.34
	5,456	105.96	5,218	2,672	2,546	104.94	238	135	103	131.06	4.36

[1] Statistics of births during one year in a fifth city, Waterbury, Conn., have also been published by the Children's Bureau (Hunter, '18). The data given show a total of 2,654 births, of which 3.2 percent were stillbirths. Since sex data are given for only 53 of the 86 stillborn young, this series of data is excluded from Table 3.

As shown in Table 3, the percentage of stillbirths in the various cities concerned varied from 2.96 (Brocton) to 5.67 (Johnstown), and in the total of 5,456 births recorded there were 238, or 4.36 percent, of stillbirths. In this series, therefore, the birth mortality is considerably higher than that in any series of data previously cited, yet in each of the papers in which the birth statistics are given it is stated that the number of stillbirths recorded is probably too low, owing to the great difficulty experienced in obtaining accurate information regarding such births. It has been estimated that at least 5 percent of stillbirths are never recorded, even in localities in which the laws regarding their registration are most rigidly enforced.

Although the birth mortality in domestic animals would seem to be a matter of considerable importance to the stock breeder, there are only a few scattered references to it in works dealing with various phases of stock breeding, and practically no data having statistical value are available for analysis. According to Bernoulli ('41), records for Europe covering a period of ten years show that from 10 to 15 percent of calves were dead at birth. As, however, a very great proportion of these deaths

Digitized by Google

were undoubtedly abortions due to infectious disease, the normal birth mortality among full-term fetuses is yet to be determined.

Fairly complete records regarding living foals have been kept in various studs throughout Europe for many years, but data for the stillborn are very meager. Records compiled by Hoffman ('85) show that in a total of 1,556 foals, 87, or 5.6 percent, were stillborn. Goehlert ('84), quoting Baumeister, states that on the average 6 percent of all foals are born dead; 4 percent of these are cases of abortion and 2 percent are of foals at the end of term. In neither of these papers are any data given that show the sex proportions among the stillborn young.

Available evidence thus seems to indicate that in the higher mammals from 2 to 4 percent of full-term fetuses are dead at birth, and it is probable that at least half of this mortality is due either to disease or to mechanical injury at birth.

The Sex Ratio in Stillborn Young

It is a matter of considerable interest whether the sex ratio, i.e., the number of males to each 100 females, in the stillborn is the same as that in the living young. For if there is a pronounced and constant difference between these two ratios, there must be some disparity between the sexes that is an important factor in the birth mortality.

In order to make a possible comparison between the sex ratio for the living and that for the stillborn young of the albino rat, it is necessary to ascertain the sex ratio that is normal for the species. Cuénot ('99) gives 105.6 males to 100 females as the sex ratio in thirty litters of albino rats; records for over 1,000 litters of stock albinos, as collected by King and Statsenburg ('15), show a sex ratio of 107.5 males to 100 females; while the data as given in Table 2 of the present paper indicate a sex ratio of 104.1 males to 100 females in a total of 31,670 births.

The normal sex ratio for any species can be obtained only by ascertaining the sex proportions among all of the offspring of a considerable number of females kept under favorable conditions of environment and of nutrition during the entire period of their reproductive activity. None of the sex ratios for the albino rat as given above can, therefore, properly be taken as the norm, since none of them are based on complete series of data. Records covering the complete breeding history of a number of stock albino females have recently been obtained, however, and they show that the sex ratio in the newborn, including those dead at birth, is about 107 males to 100 females. This ratio, therefore, is the one that will be taken as the norm for comparison with the sex ratio in the stillborn.

On referring to Table 1 it is found that in each year that mortality data for the albino rat were recorded there was a very great excess of males among the stillborn. While the number of stillbirths in any year was relatively small, the fact that in each set of records the sex ratio varies from the norm in the same direction, and to a very considerable degree adds materially to the value of the data. In the total of 415 stillbirths recorded the sex ratio was 129.3 males to 100 females. This ratio is 26 points above that for the living young in the litters concerned, and as it is 22 points higher than the sex ratio taken as the norm (107 males to 100 females), the deviation is much too great to be considered as within the limits of normal variation. Granting that the records for stillbirths are incomplete, there is no reason to suppose that the sex ratio in the unrecorded stillborn would differ materially from that for the recorded stillborn as given in Table 1. The evidence at hand, therefore, indicates that in the rat the mortality at birth is far greater among the male than among the female young.

According to Rauber ('00), as early as the year 1660 Graunt showed that more boys than girls were born in the city of London, and this finding has been confirmed by practically every collector of human birth statistics since that time. Nichols' very comprehensive table of birth statistics, to which reference has already been made, shows a sex ratio of 105.5 males to 100 females in over four hundred million living births. More recent data give practically this same ratio; thus data for 171,297 living births of white and colored children in Cuba during the period from 1904 to 1906, as given by Heape ('09), show a ratio of 105.46 males to 100 females; while among the 465,655 births in Massachusetts from 1910 to 1914 the sex ratio is 105.41 males to 100 females (Terry, '17). Statistical evidence from many different sources thus seems to warrant the conclusion that in all civilized countries of the world there is an excess of males among the living young; the ratio which

Digitized by Google

may be considered as the norm being about 105.5 males to 100 females. This ratio, as several investigators have pointed out, is remarkably constant, and is maintained "through periods of war and of peace, of famine and of plenty, and under a great variety of racial and of climatic conditions; the variations, as a rule, being not greater than one percent" (Pike, '07).

Available statistics for the sex of stillborn children are admittedly very incomplete, yet millions of such births have been recorded, and they invariably show a fairly uniform sex ratio that differs in a marked degree from the sex ratio which is the norm of the living young. A few series of investigations may be cited to indicate the trend of such statistics in general. In the 13,635,986 stillbirths compiled by Nichols there were 131.6 males to each 100 females, the range of variation in the number of males being from 130 to 140 in the great majority of cases. In the records for stillbirths in various countries of Europe, as tabulated by Lewis and Lewis ('06), the number of males to 100 females varies from 120 to 170, with the average around 130; Heape's ('09) data for Cuban births shows a sex ratio of 144.45 males to 100 females among the stillborn, while Hirsch ('13) gives 127.9 as the number of males to 100 females in the stillborn young recorded in Germany during 1908 to 1909; and, finally, the birth statistics of the United States for the year 1918 indicate a sex ratio of 137.1 males to 100 females among the stillborn (Davis, '20).

All the various series of records given above show that the sex ratio in the stillborn is much higher than that in the living young, and sex statistics for aborted fetuses indicate that the excess of boys becomes greater the earlier the month of pregnancy in which the fetus dies (Rauber, '00; Nichols, '07; Auerbach, '12; Carvallo, '12). This latter fact is of great importance, since it indicates that one, at least, of the chief causes for the excessive mortality among males at birth must be sought in conditions that exist in early rather than in late stages of gestation.

In 1841 Bernoulli called attention to the fact that the sex ratio at birth is not the ratio in which the young are conceived, and he concluded that the true sex ratio for man is about 108.2 males to 100 females. This ratio is practically the same as the 'primary' sex ratio recently calculated by Jendrassik ('11) and by Schultz ('18). The fact that in man the sexes are very evidently not conceived in equal numbers is a decided stumbling-block in the way of any theory of sex determination that postulates chance as the chief factor in deciding whether a given ovum shall become male or female. Morgan ('19) has recently offered the following explanation for the constant sex ratio in man:

"Since male babies die oftener than females, the difference has been said to be an 'adaptation,' with the implication that it calls for no further explantion. Several possible solutions suggest themselves. The male-producing sperm bearing the sex-chromosome may more frequently develop abnormally than the female-producing sperm. Again, since the spermatozoa must, by their own activity, travel the entire length of the oviduct to reach the egg as it enters the tube, the greater size or weight of the female-producing sperm may give a slight advantage to the male-producing sperm in the long trip up the tube. This would lead to an excess of males."

Since there is no evidence at present that one kind of spermatozoa is more active or more inclined to be abnormal than the other, it must be admitted that the above explanation for the male excess in human offspring is not an entirely satisfactory one.

A comparison of the sex ratios found in the newborn of the rat with the corresponding ones for man show that they agree closely in all cases. The sex ratio that is normal for the living young at birth is practically the same in both species, being about 105.5 males to 100 females; in both speries, also, the sex ratio in the stillborn is much higher than in the living young, averaging about 130 males to 100 females. This striking similarity in the sex ratios of two such widely separated mammals as the rat and man is a matter of considerable theoretical interest, and it may have a practical bearing as well, since through carefully controlled experiments on the lower form it may be possible to obtain information that will help to check the appalling birth mortality among human offspring.

Although a considerable body of statistics has been collected by Düsing ('84) and by Wilckens ('86), among others, regarding the normal sex ratio in domestic animals, practically no information is available concerning the sex proportions in the stillborn. In fact, the only reference to this subject that I have been able to find

Digitized by Google

is in a paper by Goehlert ('82) which deals chiefly with the inheritance of coat color in the horse. Goehlert states that in 135,826 living foals born in various studs throughout Europe the sex ratio was 96.57 males to 100 females. Then follows this significant statement: "Derselbe steigert sich bei den todtgeborenen auf 106 bis 107 Hengst gegen 100 Stutenfohlen." The data on which the above statement is based are not given, but if they are extensive and accurate enough to have statistical value, they indicate that the sex ratio in stillborn foals is some 10 points higher than that in living foals. Thus in man, in the rat, and in the horse, the only mammals for which data are at present available, the birth mortality is apparently far greater among the male than among the female young. It is not improbable that future investigations will show that this condition is characteristic of the Mammalia generally.

Seasonal Variations in the Percentage of Stillbirths

It has been claimed by Düsing ('84) that seasonal variations in temperature, through their action on nutritive conditions, affect not only the sex of developing fetuses, but the percentage of stillbirths as well.

The desirability of recording data for stillborn rats according to the month of the year in which birth occurred was not realized when this investigation was begun, consequently only the data collected during the last year can be grouped by seasons as shown in Table 4.

TABLE 4

Showing the percentage of stillbirths in the albino rat colony from June 1, 1918, to June 1, 1919. Data arranged according to the season of the year in which birth occurred.

Season	Total Number of Litters	Total Number of Young	Number of Stillbirths	Percentege Stillbirths in total Number of Young
Spring (March to May).....	183	1,349	24	1.78
Summer (June to August).....	166	1,134	21	1.85
Autumn (September to November..	120	821	25	3.04
Winter (December to February)...	156	1,050	24	2.28
	625	4 354	94	2.16

Stillbirths were recorded in the colony during every month of the year, the smallest number (3) being found in May, the largest (14) in September. On grouping the data as shown in Table 4, it is seen that the 94 stillbirths were very evenly distributed throughout the different seasons, the variation in number being from 21 (spring) to 25 (autumn). The percentage of stillbirths in the total litter production, however, shows a wide range of variation in different seasons, being nearly twice as great in autumn (3.04) as in summer (1.78). The data given in Table 4 are, of course, too few to have much statistical value, but they seem to indicate that the percentage of stillbirths tends to vary somewhat with the season, reaching its highest point in the autumn months. Lacking adequate means of heat regulation, rats suffer severely from high temperature, and the young born late in summer and in the autumn are, as a rule, inferior to those born at other seasons as regards their power of growth, resistance to disease, fertility, and longevity. It is not surprising, therefore, to find that this lowering of the physical tone of the animals at a definite season of the year is followed by an increase in the birth mortality.

From an analysis of the data for over ten million births occurring in Prussia from 1872 to 1881, Düsing ('84) concludes that "bei den Kindern, welche im Anfang des Jahres erzeugt und im Herbst geboren werden, zeigen sich die wenigsten (3.6 per cent), dagegen bei denen, welche im Frühjahr gezeugt und in Winter geboren wer-

Digitized by Google

den, die meisten tot-geburten (4.4 percent)." Other groups of statistics for human births do not support Düsing's conclusions, however. Thus, data compiled by Davis ('20) show that in the birth registration area of the United States during 1918 the lowest percentage of stillbirths occurred during the summer (3.07 percent), and the highest in the autumn (3.79 per cent); while birth statistics for the city of Philadelphia covering a period of ten years (Sozinskey, '85), and also those for Boston during 1891 to 1910 (Whipple, '19), indicate no appreciable variation in the rate of stillbirths during different seasons of the year.

From available evidence it would appear that the birth mortality in man is but little influenced by the season of the year in which either conception or birth occurs. Since man has a highly developed mechanism for heat regulation, moderate changes of temperature have very little effect on body metabolism and therefore cannot, under ordinary circumstances, influence the nutrition of the fetus, as Düsing claims.

Postnatal Mortality

Since deaths that occur among the young within a few days after birth are traceable, in many cases, to prenatal causes that are responsible for a certain proportion of stillbirths, a brief consideration of postnatal mortality is included in the present paper.

Little exact information is available, as yet, regarding the mortality among young rats during the week after birth. The number of such deaths in any large colony is considerable, but what proportion of them is due to prenatal causes cannot be determined, since a great part of such mortality is always due to causes that are purely accidental, such as smothering of the young by the crowding of adults into the nest when they are cold or frightened and death from exposure or starvation when the young leave the nest and are not carried back by the mother.

Records kept from June 1, 1918, to June 1, 1919, show that ninety-eight rats died within three days after birth from causes that were undetermined. As during this year 4,250 living young were born in the colony, the postnatal mortality was 2.3 percent, or slightly greater than the birth mortality during the same period (Table 2). Although the great majority of these deaths were undoubtedly accidental, some of them were unquestionably due to prenatal causes that so affected the constitutional vigor of the individual that death was inevitable. Occasionally litters are cast in which one or more of the members are very much under normal size. These small individuals are the so-called "runts," which are frequently found among multiparous mammals, and since they are usually unable to compete with the larger and more vigorous individuals of the litter in their efforts to obtain food, they generally die within a few days after birth. Under very favorable conditions some of these undersized individuals are able to survive and to reach maturity, but they never attain the size of the normal members of the litter, and they are usually sterile (King, '16). Since runts are found most frequently in very large litters cast by young females and in litters cast by females that are not in good physical condition, they are evidently individuals with relatively low initial vitality that were subjected to conditions inimical to growth during the intrauterine period; the weaker among them die soon after birth; those that survive are among the physically unfit that generally "drop out" at a relatively early age.

Among the 98 young recorded as dying shortly after birth there were 42 males and 56 females, or a sex ratio of 75 males to 100 females as contrasted with a sex ratio of 141 males to 100 females in the stillborn young found during the same period (Table 1). The marked difference between these two ratios is readily explicable. Factors responsible for the great excess of males among the stillborn can act only to a very limited extent in influencing the sex ratio in the young that die after birth, and postnatal mortality due chiefly to accidental causes might be expected to take a heavier toll from the females, since at birth the females are somewhat smaller, as a rule, than the males (Donaldson, '06; Jackson, '13; King, '15).

The question of postnatal mortality among human offspring involves so many different factors that an adequate consideration of the subject cannot be attempted here. The many investigations that have been made show that the mortality is very high during the first month after birth, averaging about 5 percent of all young. About one-fourth of these deaths, it has been estimated, are due to improper care or to disease, the remaining can be attributed to premature birth, injuries at birth,

Digitized by Google

or to congenital debility (Ashby, '15; Hunter, '18; Eastman, '19; Dempsey, '19).

Sex statistics for infants dying under one year of age, as collected by a number of investigators in various countries (Düsing, '84; Rauber, '00; Prinzing, '06; Nichols, '07; Dutton, '10; Pinard et Magnan, '13; Kroon, '17; Ashby, '15; Davis, '18, '19, etc.), all show that infant mortality is considerably greater among boys than among girls, and that, while it varies considerably in different localities and under different conditions, on the average about 120 boys die to each 100 girls.

A comparison of the findings for the rat with those for man shows that in both forms the postnatal mortality is somewhat higher than the birth mortality; in the rat this mortality is chiefly due to accidental causes that seemingly tend to kill more females than males, while in man infant mortality is traceable in many cases to "congenital debility," which is apparently far more fatal to males than to females.

(To be concluded in next issue)

"WOMEN AND THE VOTE IN RELATION TO CONSTRUCTIVE HYGIENE"

By CHARLOTTE ABBEY, M.D.
Philadelphia, Pa.

THE vote, if looked at from a physician's standpoint, is seen to be one of the external forces necessary to rejuvenate the world, for it is seen to be the means by which a universal perception of justice can be brought about and conditions given that are the fundamental bulwarks of healthy growth, peace and true happiness.

The sense of "justice" is a life force, because it instinctively asserts itself in the human heart, whenever that heart is personally confronted with unfair dealing.

Granted that many differ in their estimate of what is just or unjust, but when in the mental laboratory is brought to bear the crucial test of "the Divine Law" requiring us not to treat any one more unjustly than we would wish to be treated ourselves, then all sense of "relativity" vanishes; we see that justice is for all, and that the most ignorant and helpless amongst us are the ones that require our most special attention.

"Justice" belongs to the spiritual side of life—the real life incarnate in form—that which appeals to the understanding of those who in sincerity worship the Creator of Life, no matter what form of religion they may be known by.

Injustice belongs to the life that has become externalized by form, and has to be redeemed through the practice of justice in every-day action.

The large majority of men and women have not begun to look upon the vote in its true light as a means of physical and mental regeneracy; in fact, a steady degeneracy has taken place since the principle of government was laid down by the Constitution of the United States, and all men declared to be equal.

This declaration was never intended to be taken in its materialistic sense, but in the spiritual concept of life; for all life proceeds from the same source, permeating the material, and dependent for the character of its unfoldment in the form which it occupies, thus giving rise to many variations, but breathing through its life force in the human race the thought, "I am, because I feel and know."

A nation may give away large sums of money to other nations in need—through sympathy being ready to make the sacrifice required—because perception of justice to the children of its own nation has not yet manifested itself in its true importance; but when this truth does make itself felt, truth in regard to all the relations of life—national and international—will be more greatly in evidence, and wisdom will show the way to measure out love and justice to all.

As it is, there is a marked decadence in the characteristics that distinguished boys and girls of Colonial days and the children of the present day.

It may be said to this that it is not the descendants of old American stock that form the degenerates, that it is the thousands of children who have been born on these shores of foreign parentage, who have been brought up to think more of parade of ideals than materializing those ideals through healthy and virtuous action.

Whether this is so or not, the old American stock cannot shield itself from the charge of delinquency if it does not keep alert on all questions that concern the welfare of the rising generation, and see in all children part of the universal life force given into our care to be trained into intelligent justice-loving citizens worthy of complete freedom.

With the coming of woman's suffrage there was ushered into the arena of Government a force whose true power has not yet been generally recognized by itself, or yet by the force it joined.

The development of this power is alto-

Digitized by Google

gether dependent upon the number of men and women whose mental vision has been quickened to see the relation which the law of justice and love, given by Heaven, bears to Governmental procedure.

Unless women grasp intelligently and morally the responsibility which they have acquired by the vote. All that has been done by true-hearted and loyal men and women will be lost, and women will become the partisans of those who make ambition, for party interest, of more concern than loyalty to country and people.

The time for cleaning away the darkness brooding over human intelligence has come.

We see woman divided into two sections. The one concerned only with present interests and pleasures, with eyes fixed on the ground, helping men to make political hay whilst the sunshine of party power lasts—the sunshine that literally precedes the night of lust and degeneracy.

The other section—the one that, like an eagle, gazes fearlessly at the sun blazing in the blue sky of space—calling to all men and women to hold sacred the vote by dedicating it to the Law of Brotherhood and Justice—the equivalent of the Law of Love handed down from the ages.

It is sometimes said that politics and religion cannot go together. That depends, however, upon what we call religion.

If by religion is meant "sectarian persuasion," then politics and religion cannot be intertwined.

But if by religion we only mean the fulfillment of the Divine Law of Love, that was given for the guidance of human desires, and which is necessary for the upbuilding of the noblest characteristics of humanity—then religion and politics must go hand in hand; the one is absolutely essential to the well-being of the other. "United" they stand as one supreme force bringing about the political economy necessary for the welfare of the nation and the comradeship of men and women.

No matter how perfect a country or nation may become, people will always differ in regard to best methods of attaining an object—which object they are mutually agreed ought to be attained for the good of all people.

It would indeed be a poor world if people were interdicted from individual opinion, so long as each is only interested in bringing about the highest good for all, and that ideal of opinion in no wise interfering with the thought of love and justice. But the pity of it is that there are millions amongst us who are incapable of concentrated thought, from those who are actually mentally deficient, to those whose education has never awakened the slumbering faculties to consider fital subjects.

These are indeed like flocks of sheep running hither and thither, wherever driven by circumstances.

Whenever knowledge is acquired by such as these, it is used for the satisfaction of some personal instinct, be that instinct kindly or otherwise; but the writer has frequently found that when a feeble-minded individual is led to understand that, through trying to live a kind and useful life, he or she is living the Life of Love which Jesus taught—such children or adults attain to powers of self-control attained in no other way; and the reason for this success is that an appeal has been made to the heart and not to the brain; the appeal is made to the fount of sympathy—that is, so to speak, inherent in every heart, no matter how it may be hidden by the material desires of the senses.

When a nation sees to it that the millions of children under its care—no matter what their age or grade of intelligence—are shown the necessity of living kind and useful lives as a means to attain the glory, beauty and happiness of health, honesty of purpose and industrial co-operation, then we will see boys and girls growing into men and women who have been awakened to the value of creative power through a sense of justice, instead of only selfish ambition.

Philadelphia, Pa., October 26, 1921.

Palestine.—A Council of Women was recently formed in Palestine to secure coordination of the work of the existing social agencies and to help the government in matters relating to women and children. The first problem undertaken was that of prison reform. As a result of its efforts, a woman has been appointed to look after all women and girls for whom the government has direct responsibility. The Public Health Department has applied to the Council for assistance in connection with the supervision of midwives. Various other matters relating to the welfare of children have been considered by the Council in the six months of its existence.

Digitized by Google

THE HEIGHT OF COLLEGE WOMEN

(Second Note)

By CLELIA DUEL MOSHER, M.D.
Leland Stanford Junior University, California

[The following figures and data collected by Dr. Mosher in connection with her work at Leland Stanford University are of much interest to those who are watching the mental and physical development of the race.]

THE popular belief that women are increasing in size has, apparently, received some confirmation from the study of 4,023 women who entered Stanford University during the past thirty years.* This study has been limited to the entrance physical examinations, a limitation which minimizes the influence of the college work; the number of graduate students included in these cases is probably too small to have had any great amount of influence. Every available record has been used which gave age, weight, and height of the women at their entrance physical examinations.

The romantic story of the founding of Stanford University gave its opening in 1891 a very wide publicity and attracted students, not only from California and the neighboring States, but also from the Middle West and from the far East, both North and South. Every State in the Union, with the exception of Delaware and North Carolina, has sent its daughters to Stanford University. The distribution of the birthplaces in the thirty years considered is surprisingly uniform. California, with 1,502 native-born students, contributes only about 35 percent of the total number considered in this study. If we omit the Californians and consider only the number from the other Pacific States, we find 131, while 132 were born in the New England States; the Middle Atlantic group provided 242 and the Mountain States 292; the East North Central States are represented by 672 and the West by 682. The South shows a smaller number, 42 from the East and 68 from the West-South Central States.

The foreign born number 132. They are rather evenly distributed through the three decades, and show no marked deviation from the average height of their respective years. Many of the foreign-born students are Canadians who have lived a good part of their lives in the United States; others are foreign-born daughters of American missionaries and engineers, who were by chance living in foreign lands; or in some cases there are American college men's children born abroad while their fathers and mothers were in residence in foreign universities. In any case, the numbers are too small to influence materially the average height for any given year. Thus it would seem that these Stanford women are a fair sample of American college women rather than a localized group.

The Table I shows by States* the distribution of the birthplaces of 4,023 Stanford women, and also shows the number in each group of States.

The curves for the Californians and non-Californians both show the upward trend of weight and height and the downward trend of the age curves.

The grouping of these cases in four age periods does not obliterate these curves, but shows the same general directions. The accuracy of these results is still further augmented by the fact that the investigator made the physical examinations in 1893-4-5; from 1911 to 1918; and part of the examinations in 1910, 1919 and 1920-21. These years contain 1945 of the total 4,023 cases included in this study, and are distributed in the first and second decades as well as in the third. Certain of the remaining records were made by examiners trained by the investigator, thus minimizing the element of error introduced by the personal equation in measuring. The curve constructed from the writer's own measurements shows the same upward trend for height as in the curve based on all of the cases for the thirty years.

*Mosher, Clelia Duel, "Concerning the Size of Women," Preliminary Note in California State Journal of Medicine, Feb. 1921. The main part of this preliminary note is presented here together with certain revisions and additions.

*It is unfortunate that the records made it impossible to separate the numbers of women coming from North and South Dakota; these were therefore considered together.

Digitized by Google

TABLE I. PLACE OF BIRTH BY STATES OF 2023 STANFORD WOMEN

New England States—132

Connecticut	26	New Hampshire	8
Maine	32	Rhode Island	5
Massachusetts	52	Vermont	9

Middle Atlantic States—242

New Jersey	25	Pennsylvania	80
New York	137		

South Atlantic States—42

District of Columbia	13	South Carolina	3
Florida	3	Virginia	6
Georgia	5	West Virginia	5
Maryland	7		

East North Central States—672

Illinois	256	Ohio	123
Indiana	120	Wisconsin	96
Michigan	77		

West North Central States—682

Iowa	242	Missouri	100
Kansas	111	Nebraska	87
Minnesota	92	No. and So. Dakota.	50

East South Central States—43

Alabama	5	Mississippi	6
Kentucky	21	Tennessee	11

West South Central States—68

Arkansas	14	Oklahoma	6
Louisiana	7	Texas	41

Mountain States—292

Arizona	21	Nevada	38
Colorado	97	New Mexico	11
Idaho	24	Utah	40
Montana	47	Wyoming	14

Pacific States—1633

California	1502	Washington	53
Oregon	78		
Alaska	2	Foreign Born	132
Hawaii	10	Birthplace Unknown	73

The stadiometer found in all gymnasium examining rooms has been used for all of the measurements. The method of determining the height has been as follows: The woman stands with heels touching the rod, and with the chin kept level; she is then asked to make herself as tall as possible, being sure that the feet are kept on the ground. Two or three or even more readings are usually made, and the highest of these is recorded. The danger of error is found to be greatest in the tall girls, who so often carry their heads forward in their effort to minimize their height. Since the number of tall women is apparently increasing, the probability of minimizing the average height of the modern woman is thereby increased, unless special attention is given to securing the maximum measurement in these cases.

The examinations are usually concentrated in the first days of the semester or quarter, but are always made during all hours of the working day. Thus it would seem fair to disregard the diurnal changes as having any very material influence on the results.

A statistical study has been made of the probable errors of the average heights for the years 1891-2, 1893-4, 1916-17, 1917-18, and for 1893-4 compared with 1916-17. All of the measurements of this last pair were made by the writer. This study shows that the average heights are based upon series which more than satisfy statistical requirements, and that the difference in heights in the contrasted pairs is so many times greater than the probable error of the difference as to afford statistical assurance of validity.

Thus far the cause of the obvious error in the average height for the year 1903-4 has not been found. It has, however, been ascertained that all of the measurements for that year were made by the same person. Re-examinations by the examiner who had made most of the examinations for a period of years both before and after 1903-4 were found in two cases. Both of these re-measurements were much smaller—2.6 cm. in one case and 0.6 cm. in the other.

The variation in numbers of records in the different years has been influenced by several factors. In the early years physical examination was required only of women who elected work in physical training. The inference that these women were exceptionally vigorous suggests an added value for the conclusions in that the first measurements are probably of the best developed and most physically active women of that period.

In 1917-18 compulsory physical training for two years was required of all undergraduate women before being granted their degrees. This requirement brought a somewhat increased number of women to the gymnasium for physical examination, an increase which is reflected in the number of cases recorded in Table II for 1917-18 and also in 1918-19.

With the growth in the work of the University Public Health Committee, beginning in 1902-3, the anthropometric emphasis in the examining room was rather rapidly replaced by an increased attention to the individual hygiene of the entering women. This materially influenced the completeness of the measurement records in certain years, and is reflected more or less in the number of cases complete enough for this study. In 1912-13 only 91 records of height were made. This

Digitized by Google

was due to the fact that the director was, like the physical examiners in other colleges, overbusy, and so cut out every possible measurement in order to secure extra time with these entering women for the seemingly more vital problems in their hygiene. Although the number of cases in the year 1912-13 is therefore smaller, the average for the year would seem to be based on a fairly representative series of cases, since it proves to be exactly the same as that of the year before and that of the year following.

A general survey of all available data suggests that two great factors are concerned in these results: (a) the change in fashion, making possible the wearing of clothing which interferes less with the hygiene of the woman; (b) the increased physical activity which has been brought about (1) by the change in dress, (2) by the development of physical training and sports in the secondary schools as well as in our colleges, (3) by the change in the conventional attitude toward these activities for women. The close relation between the physical changes in women and these causes will be discussed in a later paper.

To be well within the limits of safety we may disregard the average height for the first recorded year, since the abrupt change (62.4) for 1891-2 to the average for the succeeding years is so great as to excite some suspicion of its accuracy, especially as we have no data showing the relation of this low average to the averages of the years preceding.

We may therefore conclude, pending further investigation, that, as illustrated by the changes recorded in 4,023 women entering Stanford University during the past thirty years, the average height of the college women of today has increased from one to one and two-tenth inches.

There is also a definite increase in the average weight. The detailed data of this part of the investigation will be presented in a later paper, together with the evidence which shows that this increase in weight and height has occurred in spite of the fact that the average age of the women entering Stanford University has grown less. The racial as well as economic importance of these changes, which point to a more fully developed and more perfectly functioning type of woman, can hardly be overestimated.

TABLE II.† AVERAGE HEIGHT OF 4,023 STANFORD UNIVERSITY WOMEN IN YEAR GROUPS

1891-92 to 1920-21, Inclusive

University Year	No. of Cases	Average Height in Inches
1891-2	94	62.4
1892-3	91	63.2
1893-4	89	63.0
1894-5	124	63.3
1895-6	108	63.0
1896-7	127	63.4
1897-8	124	63.2
1898-9	124	63.2
1899-1900	117	63.5
1900-1	118	63.4
1901-2	104	63.8
1902-3	150	63.8
1903-4	102	64.9
1904-5	39	62.9
1905-6	78	63.5
1906-7	158	63.8
1907-8	180	63.6
1908-9	63	63.5
1909-10	133	63.9
1910-11	193	63.6
1911-12	131	63.8
1912-13	91	63.7
1913-14	146	63.7
1914-15	168	63.9
1915-16	178	63.7
1916-17	170	64.0
1917-18	238	64.2
1918-19	276	63.8
1919-20	157	63.6
1920-21	152	63.9*

†Some of the averages in this table differ slightly from those published in the original preliminary note, owing to certain clerical errors which unfortunately escaped correction before publication.

*Examinations of women entering during the first and second quarters only.

TABLE III. AVERAGE HEIGHT OF 4,023 UNIVERSITY WOMEN BY TEN-YEAR PERIODS. (From Table II.)

Years in 10-Year Periods	No. of Cases	Average Height in Inches
1891-2 to 1900-1 (inclusive)	1116	63.2
1901-2 to 1910-11 (inclusive)	1200	63.6
1911-12 to 1920-21 (inclusive)	1707	63.8

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association
Headquarters, 637 Madison Ave., New York

A THRILLING LETTER FROM TURKEY

By DR. ESTHER LOVEJOY

This tale, not of "Two Cities," but of many, with the courage and faithfulness and divine love of womankind for suffering humanity, strikingly exemplified, is told by Dr. Lovejoy in characteristic fashion; vivid word pictures of conditions as seen personally by her.

Ismid, Turkey, July 28, 1921.

THIS wreck of a city was taken by the Nationalists—the Turks under Moustafa Kemal—about four weeks ago, and the story was flashed around the world by wireless from the warships of the nations standing off shore umpiring the game; but the story of Dr. Mabel Elliott and her nurses, Mrs. Mabel Powers, Miss Leila Priest and Miss Griselle MacClaren, four American women and nineteen native girls stationed at the American Women's Hospitals of the Near East Relief on the hill beyond the city has not yet been told.

It is nothing new for Ismid to fall. Like many other cities in this ancient land, it has been rising and falling for ages. It was the old Necomedia, and rose to great power as the Capital of Byzantium, and fell and rose again; and after many centuries of "ups and downs" under different conquerors and rulers, finally fell into the hands of the Kemalists four weeks ago, and unless the usual signs fail it will fall again before very long.

Of course there was a massacre. The fall of a city without a massacre would disappoint the proudest traditions of the country—and the Turk is not alone when it comes to maintaining traditions. Do unto your enemy as he would do unto you, and do it when you get the chance. This is the prevailing idea. Let him be robbed and murdered—cut off root and branch. This is always pious and patriotic, and sometimes profitable.

On this occasion the Greeks had their innings first. About twenty thousand Greek soldiers had been stationed at Ismid. These had been withdrawn to strengthen the Brousa front, and the small force left were unable to hold the city when it was attacked by the Kemalists. What was to be done? The usual thing. Get away with the valuables. (One American woman saved her bath-tub at considerable risk—it was her most precious possession.) Then burn, sack, massacre the enemy inhabitants of the city and evacuate. It is reported that the refugees had been given arms to protect themselves, and that they believed in prevention.

Digitized by Google

No outsider can pass judgment upon these things. Self-preservation is a primal law. It is a case of safety first, and the survival of the one who strikes the swiftest, surest blow. A dead enemy does no immediate damage. He does not lie in ambush and stab you in the back. Therefore, from the standpoint of those vitally interested, the Greeks merely took the necessary and time-honored precaution in the evacuation of the city of Ismid.

There were between thirty and forty thousand Greek and Armenian refugees to be gotten safely away before the Greek troops withdrew. Many of these had suffered deportation during the earlier years of the war, and had returned after the armistice when Ismid was occupied by the British forces and seemed about the safest place in the country. These unfortunate people had witnessed massacres over and over again. Suffering and humiliation had been their daily portion during their exile; these experiences seemed about to be repeated; naturally they were terror-stricken and ran through the streets toward the wharfs on the waterfront, screaming and praying and expecting every minute to feel a knife at their throats.

But all was quiet in the heart of the city. By the light of the burning buildings the refugees were crowded, packed and jammed onto the Greek boats in the harbor, after which the Greek troops embarked and steamed away and left Ismid, the old city of Necomedia, to the Kemalites, a new force of military conquerors.

Then the Chetas (Turkish bandits) came down from the hills to glean, as it were, and finished up any stragglers they were able to find along the way. These Chetas are interesting gentry. From time immemorial refugees from falling cities have been in the habit of swallowing the family jewels. This practice has added zest and variety, class as it were, to common highway robbery and murder, for no enterprising Cheta feels that he has done a good job unless he has gone through the intestines and other internal organs of his victim from end to end in search of loot.

About a year ago the American Women's Hospitals and the Near East Relief Committee adopted a co-operative scheme for the purpose of conducting a medical relief center. Trebizond was tentatively agreed upon as the field of operation, but owing to the military activities of the Bolshevists and the Kemalists in that region, the plan was changed and Ismid was selected because it seemed so safe and peaceful, and the need for work was very great on account of the large number of exiles and refugees who had gone there after the armistice.

Dr. Mabel E. Elliott, of the American Women's Hospitals, was appointed director of this work. She is a beautiful woman—slender, strong and straight in stature, with a serene cast of countenance and snow-white hair—it is whiter now than when she came to this country three years ago. She is used to deportations, abductions, evacuations and massacres. She was in charge of a hospital at Marash during the Turkish siege in January and February, 1920. The city was finally taken by the Turkish forces, and the people with whom she had been working were scattered to the four winds—**but her work was not lost.** It was spread broadcast by the disaster. She had not wrought with brick and stone, but with plastic human materials, and the refugees who had had the luck to serve with her found within themselves fountains of wealth of which they could not be robbed, but upon which they could draw and give to others, and grow richer themselves in the giving.

The young women belonging to Dr. Elliott's training class for nurses did not suffer the usual fate of refugees. They were not obliged to beg and live on charity in the refugee camps, or submit to even greater humiliation. They had more than common labor and sex value. As soon as it was found that they were able to care for the sick, they were called to serve in the different towns where Fate had placed them. Four of these girls were taken to Beirut, and before they had been in that city forty-eight hours they were called for service in the Syrian hospital.

The American Women's Hospitals of the Near East Relief is the center of an important hospital and dispensary service. In the general hospital there are eighty beds for medical and surgical cases; there is a separate trachoma hospital where 125 little girls are treated for this painful, eye-destroying malady; typhus and other contagious diseases have been prevalent during the winter and spring months; there are refugee camps and small-pox and tuberculosis camps besides the dispensaries where thousands of people were treated monthly.

This hospital stands upon the hillside above the harbor. It was within sight and hearing of the confusion and carnage incident to the battle and evacuation of Ismid. But in spirit it stood five thousand

Digitized by Google

miles apart—an American refuge for the sick and injured regardless of religion or nationality. There are no separate wards for Greeks and Turks and Armenians. There they lie in one big ward with their gun-shot wounds and broken legs, and the American flag floats over them. They look alike to the woman in charge. They are alike. They all belong to the human race. They have plenty of time for reflection, and if they had any sense of humor they would see what jokes they have made of themselves, but the history of warfare would seem to indicate a shortage of humor and reason in the makeup of mankind.

In one of the sacred books of some religion or other, and it seems to me that it is the Koran, there is a prophecy of dire calamity. Punishment is to be visited upon certain sinners, and after passing through generations and generations of every grade of degradation, they finally reach the abyss where they are ruled over by women. The prophecy has been fulfilled, and strange as it may seem, these poor fellows who have taken all the grades have fallen so low that they actually like the change.

The American Women's Hospital of the Near East Relief is manned by women. It has an atmosphere. It reflects the serene and saving grace of the American woman in charge. During the recent trouble every woman was at her post. Even the native girls in training only six months maintained perfect discipline, caring for the sick and wounded, friend and enemy alike. They did not flee for their lives, but when the last boat was leaving and their duty was done, then they withdrew in order like good soldiers.

The following letter written by Dr. Elliott to one of her nurses gives a vivid description of the evacuation of Ismid:

"Ismid, Turkey, July 4, 1921.

"Dear Anne—All this time and no letter from you, but, Honey, we've been through Hell. I'm so glad you got out—that is one reason I was so anxious for you to go. It is no worse than I expected it would be if the Greeks left; in fact, so far it has not been so bad—only the strain, the madness and the work! And I knew you were not well enough to go through with it.

"In the first place, Madame Nicolirare, the Colonel's wife, went from bad to worse, and I was determined I would save her if I could. I stayed up until 4:30 two nights running and several nights made midnight calls. Finally she went entirely bad, and that night I did not go to bed at all. She died at 4:00, and we had an awful time. He went to pieces and screamed so loud that everybody thought a massacre had been started.

"On top of all this the XI Division got their orders to move out and take the refugees with them. Later it was decided to leave the refugees here and send three thousand new men to protect the town. The new men came and the old division, bag and baggage, moved out. They marched around the gulf to Bardazag a week ago Thursday. It was so hard to see them go—our nice friends! Dr. A. came for the last time on Tuesday and brought his violin, and played and played as he never had played before.

"The plan was for the eleventh division to form the left wing of the Brousa front, so the entire division crossed straight over on the Brousa-Bardazag Road, but the Turks met them at Bardazag, artillery and everything from Adebazar, Sabange and the whole Ismid front; and what is more, they held them, and they didn't get by. There were eight gunboats in the harbor besides the Kilkos. Friday it was fairly quiet, but all day Saturday and Saturday night there were great fires between Bardezag and Dermarderine, and the big guns and all the rest of it were going at a great rate.

"Sunday morning our little game began, as was to be expected with only three thousand soldiers in the town. It broke out on all sides of us. They were fighting between here and our water source and on the hill across from our picnic place. Soon the Kilkos began to shell, and it shook things up, I can tell you. They shelled on all sides and back of the town. The Turks had trenches at Ratched Bey's place, where we were working our tractor, and the shells did more plowing in one hour than the tractor did in a week. Wounded were being brought in every few minutes, and we had our hands full. The shells passing over the hospital and in other directions shook the place so badly that we had trouble threading our needles in the surgery. Mrs. Powers arrived Friday. It seemed strangely like old times. Just like Marash. You know we went through the Siege of Marash together, and along she comes from Serbia just in time for the Ismid show. Perhaps she is the one. Is it possible that she attracts the evil eye?

"About noon the Greeks landed three thousand marines to help out, and in the

Digitized by Google

early evening the commandant signaled the general across the gulf that Ismid was falling and to send help. He came over with three regiments. Monday we heard that the Turks had been massacred, and the Greek general had given the refugees forty-eight hours to get out. Refugees had been pouring in from Adebazer and Sabang, and it looked as though the whole world was made up of refugees. The streets were jammed, the roads were jammed, and the cemetery at the foot of our hill was jammed with these frenzied people. The Turkish population was pouring down from the Turkish quarter as terrified as the rest. Later we verified the report of the massacre. It was only too true.

"About 2 o'clock an American destroyer came down. Jimmie Crutcher was on board. By this time all of our people were getting their pitiful little bundles together. Boat after boat was coming in, and they were beginning to load on the refugees. Varsinig left that night. People were continually coming and going, and again and again, as at Marash, I heard the despairing question, 'What shall we do now, doctor?'

"I told our girls to sit tight, and I would let them know when to go to the boat—and will you believe me, Tuesday morning every girl was in uniform, cap and all, and on duty at 7:00. Inside the hospital those girls were attending to their duties as though nothing was happening. They were not even looking out of the windows, and on the streets there was a screaming, screaching mass of humanity. Our workers came as they were directed to do, to the place where Miss McClaren was posted, gave the lists of their relatives, got their tickets and went back to their jobs. By supper time we expected to be left with one worker besides Omar (he was a Turk on my pay-roll). Who do you think the other worker was? Poor, faithful old Hagop! He said, 'Doctor stay, Hagop stay'—and that settled it.

"All this time people were coming, asking for their sick relatives, and I was discharging all I thought would be accepted on the boats. Others were bringing in sick relatives thy could not take with them. We had to put a double guard on the small-pox camp, which, by the way, we moved up the hill on Friday. This was no small job, I can tell you, with all the disinfecting that had to be done. If some of those people with the small-pox had escaped and gotten on the boats the disease would have been spread broadcast.

"At dark the last boat in sight left the docks, and still hundreds of people were there waiting to get off. Pello drove the truck until 5 o'clock, and then went down with his family to take his chances. Other boats came in and people came down to them in droves, pushing, jamming and screaming. Our girls waited on the dock until midnight before they were jammed aboard the last boat, and I could not go down to say a word to them. There was so much to do. In addition to all the other work, a new baby arrived—a fitting climax to the whole tragic business. M.E.E."

The tragic picture would have been incomplete without the birth of that baby. The dramatic unities were preserved. Fate arranged a perfect setting. The poor little mother was a refugee. Her husband had been killed by the Chetas; her family had fled, and at midnight, when her baby came, the room was lighted by the burning homes of her people.

From the general hospital we walked down the hill to the Trachoma hospital and attended the morning clinic. One hundred and twenty-five little girls are cared for at this place. Seventy of them were standing in line. Without a whimper one after another stepped up before the doctor and had her eye-lids turned inside out and the inner surface treated. The pain must have been excruciating, but no complaint was heard.

Trachoma is part of the price this country is paying for deportation during the world war. The refugees returning brought this dreadful infection with them. It is a chronic disease of the eye-lids, very painful, readily transmitted from person to person, and frequently leads to blindness. Two American women, one doctor and one nurse, have contracted the trouble while on duty in Constaniople.

It was hard to sleep at Ismid. The night was so still. The only sound that broke the silence was the occasional passing of the Turkish guard, the reassuring tolling of the time on the United States destroyer anchored off shore, and the howling of the jackals in the hills. Four bells had just sounded. It was 2 o'clock. The door stood ajar. A faint gleam of light fell across the floor. The "Lady with the Lamp" was passing. It was no phantom figure from the past haunting familiar scenes, but our Lady with the Lamp, the living, moving prototype of the woman whose service to the sick in this very land, three generations ago, blazed the way for the women of all the world.

Digitized by Google

SARAH RUDNICK, M.D.

A STORY OF THE WORK BEING DONE IN SERBIA UNDER THE SUPERVISION OF DR. ETTA GRAY

By SARAH RUDNICK, M.D.

MY visit to the American Women's Hospitals in Veles on cold rainy days last October remains a vivid impression. I found Dr. Gray in the Preventorium or Children's Hospital, which is a huge Serbian "caserne," loaned to the American Women's Hospitals by the Serbian Government. It is quite a climb to this hospital situated on the top of a fair-sized mountain, and in the ooze of the Serbian mud not a pleasant task. The capacity of the Children's Hospital was approximately two hundred. Dr. Gray's ambition was to see the place filled to its capacity with the poorly cared for children of which Serbia has so many.

To one who had been living in Serbia as I had, and was acquainted with the total lack of sanitary arrangements, Dr. Gray's accomplishment was remarkable. Certainly it must have required a tremendous effort to install running water, shower baths and sanitary toilets in a country where such luxuries are unknown and water a precious commodity as it is drawn from the mountain stream or archoic wells. However, here was Dr. Gray showing me these wonders in that barren land and taking them for granted, while I marveled.

There were all varieties of cases in the hospital; tuberculosis of the lungs and bones and glands; intestinal cases; nursing babies, and many others. No one seeing those children could deny that they were very urgently in need of the care and attention that was being so freely bestowed upon them.

Later in the morning Dr. Gray took me down into town in the Ford to see the dispensary where 70 to 80 cases were treated each morning. There were men, women and children suffering from every ailment known passing through that clinic daily. Suitable cases were admitted to the hospital, which occupied the upper floor of the building in which the dispensary was located. Upstairs there were beds in every spot that one could place them, and a variety of cases both surgical and medical.

I was very much interested to see the Serbian girls being trained here as nurses —uniformed in black and white, bright and alert, they made a very pleasant picture.

The operating room was small and compact, and it was very gratifying indeed to see the splendid progress of Dr. Gray's post-operative cases. Such cases as we here at home are afraid to handle except under the most ideal hospital conditions.

It was noon-time when I finished making the rounds with Dr. Gray, and we walked back through the mud to the staff house. Dr. Gray told me on the way over that there was only one other doctor in the town, so that the American Women's Hospitals was indeed fulfilling a very necessary office in the life of that Serbian community, and that they realized it was manifest in the respect paid to Dr. Gray and her staff.

The hot dinner at the house was well cooked and generous, for Dr. Gray realized that her staff were hard at work. I think I was struck especially by Dr. Gray's knowledge of the work at Veles from the housekeeping to the latest hospital admission. There was no possibility of leakage; she was familiar with every detail, medical and administrative. This was the more noteworthy because she was not stationary, at Veles, but divided her time visiting and superintending her various stations.

In the afternoon she showed me the reports of the different hospitals of the American Women's Hospitals in Serbia, and having first seen the actual work and then the records, I could well understand the excellent showing.

Digitized by Google

LONDON LETTER

(From our own Correspondent)

London, November 1, 1921.

Women and Medicine

THE medical schools of London—in fact, those in all parts of Great Britain —are full to overflowing. There is barely room for all, and it is really a state bordering on congestion. Women are very much in evidence in the medical schools in which they are allowed to enter, but several of the large schools refuse to admit women. The action is probably not so much due to prejudice against them, although sex antagonism may play a part, as owing to limited facilities. There is scarcely room for the men. However, there is no use in trying to evade the point that women are holding their own in open competition with those of the sterner sex, and indeed in certain branches of medical work are perhaps even better. Research is a branch in which they excel. As a rule they are more painstaking, persistent and patient than their brothers, and pay more attention to detail, an essential quality in the prosecution of research. Of course their opportunities are less by far, when they have qualified, than those of medical men. They are infrequently to be found in general practice or in consulting practice, but they are peculiarly well adapted for, and extremely successful in, certain phases of public health and hygienic work, notably in infant welfare and maternity.

There has been going on for some time a fight on the admission of women to the University of Cambridge. Most of the Cambridge dons and the majority of the undergraduates are averse from allowing women equal opportunities and rights with men. The fight culminated a few weeks ago when members of the Senate of Cambridge University again voted on a question which has been before them since 1897, when the Senate was asked to grant degrees to women, and overwhelmingly rejected the proposals. The proposals, which were of the nature of a compromise, were again rejected by a large majority. Since the passing of the Sex Disqualification Act of 1919 and the concession of privileges by Oxford, the members of the women's colleges at Cambridge have shown great persistency in their demands, and it is doubtful if any of the previous trials of strength have brought forth so much writing in general or so much correspondence in the press. It may be said that, had it been left to the undergraduate members of the University, the future members of the Senate, to decide, the issue would not have been left long in doubt.

Since the war the vastly increased numbers of male students who have been anxious to obtain University degrees, especially in the sciences, and perhaps in medicine in particular, have found great difficulty, owing to the overcrowded state of the laboratories in prosecuting their studies except under decidedly adverse conditions; and on each and every occasion, when they have had the chance afforded them of expressing their opinion, have done so with no uncertain voice. For instance, recently at a debate at the Union Society they defeated by more than a two-to-one vote a motion expressing the belief that Grace II, which was to offer women titular degrees, did not sufficiently meet the aspirations of the students at the women's colleges.

Following the defeat by the Senate ten months ago of a Grace which would have granted full status to the women, the supporters of the latter drew up another Grace termed the "Compromise." If carried, it would allow women members of the University to be elected to professorships, to compete for University prizes, give them places on syndicates and Boards of Studies, but exclude them from being members of the Senate. This was the movement which has just been defeated. It seems probable that the defeat is only temporary, and that the granting of all the privileges possessed by men will not be long withheld from women at Cambridge. The advance of women is too strong to be resisted, and those who hold old-fashioned views in this direction will in the long run be compelled to bow to the inevitable.

There is one hospital in the country in which women have full sway. The Royal Free Hospital in London is that rereferred to. It is the hospital of the Women's London Medical School. The majority of its professorships are in the hands of women, and its appointments are open to them. A short time ago the writer visited the hospital to inspect, or rather look over, the new unit of obstetrics and gynecology established there a few months ago under the direction of Dr. A. Louise McIlroy, who has given proof of her powers of organization by the excellent condition in which she has suc-

Digitized by Google

ceeded in placing the unit. A special feature of this unit is the research work which is being earnestly carried on and to which Dr. McIlroy chiefly devotes her time. She supervises the conduct and operations of the unit, but leaves the greater part of the surgery to be done by her able, keen and skilled staff. Attention is being directed, in particular, to research on the toxic conditions of pregnancy, and it is apprehended that some very valuable results will be gathered. Unfortunately research work at this hospital, like medical research in all parts of the country, is grievously hampered by lack of funds. Money for this purpose is not poured out lavishly by rich philanthropists as in America, but is given in somewhat niggardly fashion. There is no Rockefeller Foundation in this country, although it was mainly through that Foundation that the unit at the Royal Free Hospital was instituted. It would be a thousand pities if the work of the women engaged in research peculiarly within their sphere should not come to full fruition on account of paucity of money. In any event, the establishment of the Unit under the direction of a woman marks a decided advance, so far as women are concerned, in medical science.

The Prevention of Cancer—The prevention of cancer has long been the dream of medical scientists and practitioners in all parts of the world. Probably more has been done in efforts to teach the population the menace of cancer and the fact that at present the chief hope of successful treatment lies in early diagnosis in America than in any country. In this country there is nothing of the nature of the national cancer week which began in America on October 30th last, as there appears to be a certain amount of apathy with regard to cancer—a kind of so-called Oriental fatalism—which seems to deaden effort. Recently there has been a pronouncement against radium by a doctor here, whose views have been publicly repudiated by those whose experience of this agent justify them in speaking with authority. Indeed, radium has thoroughly established its reputation as a means of treating some forms of cancer, as the work of Professor Lazarus Barlow, at the Middlesex Hospital, and the splendid results now being obtained in Manchester indubitably testify. In America satisfactory results have also been brought about by the use of radium in suitable cases. A paper published by Dr. W. H. B. Aikins, of Toronto, in the "Medical Press and Circular," October 19th last, tells of the very considerable progress made in the treatment by radium in suitable cases of a malignant character. Dr. Aikins has had a very wide experience. It must always be borne in mind that those who use radium are generally greatly handicapped by the meagre supply available. On the whole, it may be said that the hopes of preventing the development of cancer are brighter than ever, and that it is anticipated radium and Röntgen-ray therapy will play a more prominent part in the prevention of malignant disease in the future than it has in the past.

Increase of Criminal Abortion—Addressing a meeting of the infant welfare workers, teachers and mothers, arranged by the National Association for the Prevention of Infant Mortality at Morley Hall, Hanover Square, London, recently, Dr. Gordon Ley, a well-known gynecologist, dealt with the dangers of unintentional poisoning during pregnancy. As regarding the criminal aspect of the subject, he said that he feared that criminal operations were on the increase. There were parts of London where he felt sure such operations took place in hundreds every week, and were performed by doctors, midwives and persons with no knowledge of obstetrics.

Reduction in the Fees of Panel Practitioners—Those medical men serving under the Insurance Act, and usually spoken of as panel practitioners, have been recently subjected to a reduction of their fees, which they have always declared to be inadequate. A year or thereabouts ago the fee, after considerable discussion and complaints by those medical men interested, that it was insufficient, was fixed at eleven shillings ($2.75) per annum. Under the new Minister of Health, who is a rich financier, and therefore presumably, if not a good, at least a capable business man, economy is being made the order of the day. His first effort in this direction has been to reduce the fee of the panel practitioner from eleven shillings ($2.75) to nine shillings and sixpence ($2.37). The panel practitioners loudly protested against this reduction and emphatically stated that they would not accept it; but after holding a mass meeting of their members, decided that they would accept on patriotic grounds, this being the plea put forward by the Minister of Health. Bureaucratic

Digitized by Google

methods seem to be in control of the Ministry of Health; and because the rank and file of the medical profession are impotent politically, they are unable to successfully fight their own battles. The situation at the present time is a delicate one. The State appears to be closing its tentacles around the medical profession, which will mean that the profession will lose its independence and liberty of action.

Hospital Crisis in London—The situation as regards the hospitals of Great Britain, and those of London in particular, is precarious. In fact, in London the crisis is acute. Sir Alan Anderson gave an address the other day to members of the Charity Organization Society, in which he quoted fresh figures showing the serious position of the voluntary hospitals in London. Speaking as one of the honorary secretaries of King Edward's Hospital Fund, Sir Alan Anderson said that they had during the summer to find out how the London hospitals stood in their own estimates. These figures were now in, and they showed a total estimated deficiency for the current year of £500,000 ($2,500,000). Expenditures would exceed total receipts by this amount. The sum available for distribution by the Hospitals Commission for the whole country was £500,000 ($2,500,000), so that King Edward's Fund Committee had to find out which of the hospitals were really on the rocks. The least solvent hospitals, it was recognized, would be obliged to shut down or not pay their tradesmen's bills. London hospitals which appeared to be in the position of greatest need had an estimated deficiency of about £230,000 ($1,150,000), which meant they were running into debt to the extent of about £20,000 ($100,000) a month. There was sufficient evidence of a grave and instant crisis. Unless some marked change should come over the whole picture of hospital finance, a large number of beds would have to be closed. Very much the same thing was happening all over the country, except that in some towns difficulties had already been grappled with, and either wholly or in large measure met. Before the war in 1913 hospital expenditure in London was £1,188,000 ($5,940,000). In 1920 the expenditure had risen to £2,841 000 ($14,205,000). In the same period the income of the hospitals rose from £1,478,000 ($7,390,000) to £2,447,000 ($12,235,000). The charity income had risen from £1,370,000 ($16,850,000) to £1,868,000 ($14,280,000), while payments by users on potential users had increased from £97,000 ($485,000) to £272,000 ($1,360,000). The Government grant in aid of the hospitals would cover only a short period of the emergency. In six months' time new schemes must be in working order. The deficiency had to be faced at once, and this was the point that King Edward's Fund had reached. The speaker went on to deal with the proposals of Lord Cave's Committee that the hospitals should ask more from the classes which used them and discussed the question of weekly contributions. King Edward's Fund, he said, did not actually agree that the users of the hospitals should pay more, but they ought to impress on the people who used the hospitals that they should pay if they could afford the money. He hoped for a greater use of the Hospital Saturday Fund as a means of collecting new contributions. In conclusion he made it clear that no system of weekly payments by potential users could do away with charity. If such payments were to prevent the public from giving, then the whole voluntary system would break down.

The above places the hospital situation in London in the proper light. There are few hospitals in London outside in the country which are not in debt, and some are heavily embarrassed. Although incomes have not, generally speaking, decreased—indeed, in many instances, increased considerably—the cost of "carrying on" has so immensely increased that it has been impossible, for the most part, to manage them except at a loss. It is time that more efficient organization, in London especially, is required; but this would not altogether solve the problem. A graduated pay system should go far to save the situation; but if this prevented the public from giving, it would be the death knell of the voluntary system. It appears that some means of compromise should be thought out, in order that the voluntary system should be maintained, but at the same time Government grants should be made and a pay system instituted. Of course the Labor Party, or the extremest section of it, is clamoring for the nationalization of the hospitals and of the profession. The traditions of the British people are strongly against bureaucratic measures of this kind, although one never knows whither one is heading in these days. It is to be sincerely hoped, however, that some other way will be found which will avoid the Scylla of working the voluntary system with inadequate funds and the Charybdis of nationalization.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to

MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

OUR CHAIRMAN

The story of Turkey in this issue, written to the "Journal" by Dr. Lovejoy while she was in Turkey, strikingly depicts the conditions existing there and the splendid courage of Dr. Elliott and her band of faithful workers. Dr. Lovejoy has the ability to paint vivid pictures of scenes witnessed by her, and this recital would stir the most sluggish.

She has just returned from a hurried but most comprehensive and profitable trip to the places where the American Women's Hospitals are located, and the report in last issue and her letters in this one are so vital and throbbing with life and action as to thrill the hearts of her readers.

The "Journal" feels that it is only proper, fair and just at this juncture to call attention particularly to the one who is constantly reporting the work of other women, but who says nothing of her own great share in this, the greatest single activity of the National Association.

The Association is certainly most fortunate in enlisting the interest of such a woman to assist them in this work. A woman capable of so much, with infinite resources and large interests, she has elected to give all of her time and energy to the furthering of the projects which, splendid as they undoubtedly are, would not have been advanced as they are without the personal supervision and fine executive ability of this wonderful chairman.

All medical women and particularly the members of the M. W. N. A. should understand and appreciate at its true value the service which is being rendered by Dr. Esther Lovejoy in the capacity of chairman of the A. W. H.

ENGLISH MEDICAL WOMEN REFUSED ADMISSION TO CAMBRIDGE

The London letter in this issue is full of interest regarding the status of women in the profession in England and their unsuccessful efforts to gain admission to Cambridge. There is but one hospital in England in which women have equal opportunities with men, although it is conceded that their work entitles them to full recognition. One reason advanced for this condition is that there is a lack of sufficient funds. There is not in England such assistance from philanthropists as in our country, and the consequent lack of funds for research work is a serious handicap to the furtherance of medical advancement, and there is in consequence keener competition. Medical schools are crowded to the point of congestion, and there naturally resulted a feeling which helped to defeat the recent effort to have women admitted to Cambridge.

AMERICAN MEDICAL WOMEN NEEDED IN THE RUSSIAN CAUCASUS

A new field for the activities of American medical women.

Dr. Elliott, who has done and is doing such splendid work in Turkey, strongly recommends that the American Women's Hospitals take over the large field that is sadly in need of medical relief in the Russian Caucasus. This can only be done by the A. W. H. if the necessary funds are secured from an interested public through the assistance and co-operation of the medical women of this country. Dr. Lovejoy has sent us the following letter written by Dr. George H. Sisson, who was sent out to Turkey by the Near East Relief Committee, and who seems to think—judging by this letter—that the American Women's Hospitals in that country is the last word so far as medical service is concerned:

Digitized by Google

Dr. Esther Lovejoy, Chairman Executive Board of American Women's Hospitals, 637 Madison Ave., New York.

Dear Dr. Lovejoy:

I reached New York last night, coming direct from the Russian Caucasus. While in Tiflis I met Dr. Elliott, who came with me to Batoum and thence on to Constantinople. Dr. Elliott had been down into Russian Armenia investigating conditions, and she told me that there was some thought of establshing a hospital in Erivan under the auspices of the organization of which you are the head. Having recently been in Erivan, I thought you would perhaps be interested to know that the need is very great. A hospital there would minister to a boundless area, for I do not know of any hospital nearer Erivan than the one in Alexandropol, which is more than sixty miles away, and railroad communications between these two places are very poor. In Erivan, not only poverty abounds, but disease in its most hideous forms is to be seen everywhere. Children are not only starving, but sick unto death, and I know of no place in the world where your board could do a better work or minister to a greater need than in Erivan and its vicinity. I need not tell you of the high esteem in which Dr. Elliott is held or speak of her remarkable skill as a physician. She is known not only for her skill, but for her splendid qualities of womanhood, and I am sure that if you should decide to establish a hospital in Erivan, as I sincerely hope you will, under the direction of Dr. Elliott, it will do a work of life saving that will mean much to the people of that needy field.

My own opinion, after investigating the field and knowing it as I do, is that your board should support Dr. Elliott to the very limit and grant every request she makes.

With personal regards,

(Signed) GEORGE H. SISSON,

Regional Director, New England Near East Relief.

OBITUARY*

Sarah Elizabeth Finch, 1881-1921

Dr. Sarah Elizabeth Finch, of Sound Beach, Conn., died in the Lenox Hill Hospital, New York City, on June 21, 1921, in her fortieth year. She graduated from Syracuse University in 1900, and from Cornell University Medical College four years later.

At the time of her death, and for many years previously, she was connected with the New York Skin and Cancer Hospital. She was greatly interested in skin diseases in young children, and she had charge of the outpatient work for babies at the hospital. She was making genuine progress in distinguishing between fact and fancy in the problem of feeding cases of infantile eczema. She was assistant pathologist to the hospital. She was particularly interested in bacteriology and mycology of the skin, and in her work she had struck leads which gave great promise of ending in the solution of some of the problems of the etiology of certain obscure dermatoses. There were few workers in America so familiar with the trichophytons and allied organisms. She has done much careful work on mycosis fungoids and on Hodgkin's disease. It is to be hoped that some of her researches have been left in such shape that they will not be lost.

She was conscientious, careful and essentially scientific, and was unwilling to express opinions until she felt sure of her ground. She was one of those faithful workers who do so much and get so little credit. Dermatology has lost in Dr. Finch's death a thorough and useful disciple, and her co-workers an associate who will be greatly missed.

*Through courtesy of Archives of Dermatology and Syphilology.

Red Cross Campaign for Garments to Send to Europe

The American Friends' Service Committee has united with the American Red Cross in a joint collection of used and unused garments to meet a terrible situation as far as is possible. The drive will be nation-wide. Those who want to know how they can help should apply to the nearest Red Cross Chapter or other Red Cross representative. Only garments which are strong, sensible, and serviceable are worth paying freight on across the water. Shoes must be in good condition and tied in pairs. Knitted garments, especially stockings and sweaters, will be badly needed. Baby clothing, new or used; uncut muslin and flannelette; strong cloth for suits, yarn, even thread in great quantities, should be accumulated.

The main collecting point for the joint campaign is the big American Red Cross Warehouse, Bush Terminal, Brooklyn, N.Y. Red Cross workers will have specific shipping instructions. Goods may also be shipped to the warehouse of the American Friends' Service Committee, 15th and Cherry Streets, Philadelphia, Pa. All shipments should be prepaid.

Digitized by Google

Dismissal of a Married Medical Woman in England.—By an overwhelming majority the St. Pancras Borough Council have decided to dispense with the services of Dr. Gladys Miall-Smith, the assistant medical officer for maternity, on the ground that she has married. It appears that the council's decision is mainly based on the theory that, because there is widespread unemployment, married women whose husbands are able to support them should not compete in the labor market. This argument is ancient and musty and in respects an economic fallacy. The belief is that people with private means ought not to work because they "take the bread out of the mouth" of those who are compelled to work for a living. The fact does not seem to be realized that when people work they may add to the common store a great deal more than they take out of it. It is more than a coincidence that Dr. Miall-Smith's dismissal was chiefly brought about by the labor councillor, who spoke for his party, saying that he had the support of the "unemployed and the ex-service men." As said before, the view that the less work each individual does the more work there will be to go around is not founded on sound principles, but is a mischievous doctrine which appears to have been adopted by the labor party in that country. It is instructive to note that five women councillors attended the meeting, but only two voted in favor of the woman doctor.

England.—The milk grant, made by the Ministry of Health for nursing and expectant mothers, and children under 3 years of age, is to be restored to its old figure of 50 percent of the amount spent by each local authority for the purpose. A recent order, which brought forth many protests, had cut down the grant to 5 percent.

Australia.—A training school for nurses has been established in New South Wales for the welfare of mothers and babies. This is an outgrowth of the visit of Dr. Margaret Harper to New Zealand and her study of the training school for nurses maintained by the Plunket Society. All nurses employed by the Plunket Society are required to secure in its training school a sort of post-graduate training in the care of mothers and babies.

The Bulgarian Government has announced that all grain and cereals intended for export to Russia will be free from duty, and has authorized local committees to collect contributions for relief work. In spite of the difficult situation in Bulgaria itself, the government has offered to care for 20,000 children from the famine district.

Infant Mortality Among Colored Population of New York.—The Bureau of Child Hygiene of the New York City Department of Health has been conducting a special campaign against infant mortality among the colored population of the city. This work began in 1915, when the statistics of the Health Department showed that the infant mortality rate in the Columbus Hill District, which harbors a large colored population, was 314 per thousand births, while the infant mortality rate of an adjoining district, largely a white population, was 147.7. The statistics for 1920 show that the infant death rates of these districts have been reduced to 116.5 and 103.8 respectively. The infant mortality rate among the white population alone and among the colored population alone shows that for the city as a whole the infant mortality rate for the former in 1915 was 96.2 and for the latter 202 per thousand births; in 1920 the infant death rate was 83 for the white population and 164 for the colored population. The decrease in infant mortality for the period 1915-1920 was 13 percent for the white population, while for the colored population during the same period it was 18 per cent. This reduction in the infant death rate among the colored population is directly attributable to the energetic efforts of the Bureau of Child Hygiene of the Health Department, but it is also a sign of awakening on the part of the colored population to the importance of life-saving measures among its children.

Colored Trade Schools at Gary, Ind.—The colored population of Gary has increased from 300 in 1910 to 9,000 in 1920. A large number of the children of the newcomers are retarded in school because of inadequate educational advantages before coming to Gary. To serve the needs of these children in the upper grades a colored trade school has been opened. The course of study for boys centers about the building trades, and that for girls about home economics. The pupils are carefully graded according to intelligence tests and school ratings.

Digitized by Google

Fate of Children with Congenital Syphilis. Husten emphasizes the necessity for enforcing compulsory treatment of children with congenital syphilis. In his experience at Freiburg with thirty-nine cases in the five years ending 1918, half the children soon died from intercurrent diseases, and only sixteen are known to be living now. A third died of those given partial treatment, but only one of those given thorough courses. Of the fourteen still living and re-examined personally, 50 percent are imbeciles or idiots. He endorses the bill now pending in the German legislature, which makes notification compulsory for all children born with congenital syphilis, and also makes treatment of venereal disease compulsory and gratis. (C. Husten, Archiv für Kinderheilkunde, Stuttgart, May 21, 1921.)

South Africa—"Child Welfare" is the title of a new quarterly magazine published by the Cape Town Society for the Protection of Child Life. The first issue appeared June 15th.

"Physical Standards for Child Laborers." By S. Josephine Baker, M.D., Director of the Bureau of Child Hygiene, New York City.

Send for Your Copy, "Bloodless Phlebotomist"

"It seemed a most distressing affair indeed. The attending physician put the patient in an ice pack at once. She grew rapidly worse. I was called for consultation, but the patient died before I could reach her—and right heer I wish to ask, does the profession generally believe in the use of ice packs in pneumonia?"

Read this timely inquiry and the answer along with other short and interesting articles in the November "Bloodless Phlebotomist."

This publication has been mailed to every English-speaking physician with a known address.

If you did not receive a copy, address The Denver Chemical Manufacturing Company, New York, U. S. A.

Building Up After Summer Diseases

The sluggishness of convalescence after the bowel disorders so common during the heated term is a condition that must be met by proper diet and carefully chosen tissue reconstructives. As to the latter, it has been found that Cord. Ext. Ol. Morrhuæ Comp. (Hagee) serves a high purpose in building up these patients recovering from intestinal disorders. It not only offers to the run-down tissues nourishment, but also stimulates the vital processes. Its palatability makes it a desirable hot weather tonic and one that may be continued for long periods.

With many clinicians it is a routine practice to employ Cord. Ext. Morrhuæ Comp. (Hagee) during the convalescence from gastro-intestinal diseases, particularly in children, by reason of the ease with which it is assimilated and its definite tonic properties.

A SKATING PARTY AT CHRZANOW, SOUTHWEST POLAND
There is Just One Skate for the Twelve of Them; the Red Cross is Helping to Clothe Them and Countless Others in Poland

Digitized by Google

The Medical Woman's Journal

A Monthly Journal Published in the Interests of Women Physicians

VOLUME XXVIII
NUMBER 12

December, 1921

$3 per year in advance
Single Copies, 25 cents

A PRELIMINARY REPORT ON THE PROBABLE CAUSE OF CANCER AND OF OTHER TUMOR FORMATIONS

By ALBERT SCHNEIDER

College of Pharmacy, University of Nebraska
Omaha, Neb.

THE following observations are believed to shed some new light on the causation of carcinoma and other tumor formations.

The first observation of interest was the finding of a species of ameba which is apparently obligatively saprophytic upon dead human cancer tissue. The first culture medium used was prepared from a small piece of cancer tissue (cancer removed from a hospital patient, and identified as "McGuire, Feb. 12th, 1921"), prepared as follows: The cancer tissue which had been in 4 per cent. (10 per cent. commercial formalin) formalin for about one week, was washed in hydrant water until all of the antiseptic was leached out. This required about six hours of time. The tissue was then ground in a mortar with 95 per cent. alcohol which was poured off and replaced by absolute alcohol and again ground and this alcohol also poured off. The alcohol extract was evaporated to dryness and set aside to be used later in certain cancer skin reaction tests. The cancer tissue was then completely defatted by means of ether and chloroform and these liquids poured off, after which it was completely dried at a temperature of about 50° C and ground to a fine powder. Small clean sterilized beakers were partially filled with boiled hydrant water, using Omaha city water which is rather high in lime content. A small pinch of the powdered cancer tissue was added to each beaker and then inoculated with two loopfuls of a highly contaminated paramecial culture. The original source of this paramecial culture was street horse dung. The inoculated beakers were then set aside at room temperature. Within three days it was observed that the paramecia had practically all disappeared, **Paramecium caudatum** (the common "slipper animalcule") being the first to vanish. (This phenomenon has also been noted by Gary N. Calkins and suggests the use of paramecial cultures as a cancer indicator). The edges of the cancer tissue fragments were practically lined with a pure culture of some form of ameba, as shown in the figures. Abundant Monas were also present and a few threads of some Leptothrix.

The abundant amebas warranted a closer study. Each amebal cell revealed slowly forming pseudopodia, a single rather irregular nucleus, one or two rather large contractile vesicles, and what appeared to be the usual food particles and numerous granular contents. As stated, the numerous pseudopodia were slow in forming and they were slow of movement, but the entire cell showed a slight to and fro twisting and turning as well as a slight progressive movement, not due to pseudopodial activity, which was rather puzzling at first and which will again be referred to.

Smears made of the cultures and stained with dilute polychrome methylene blue revealed amebal inclusions which proved to be the various stages of the sexual cycle of some plasmodium. The spindling spores representing the end product of the cycle, are very minute, staining a faint blue with the polychrome methylene blue. The living spores are actively motile and their escape in clusters from the mature and ruptured cocyst within the amebal cell explained the puzzling motion above referred to. The earlier stages of the oocyst formation stain a light blue with the polychrome stain. The advanced stages resemble large bacilli and stain a light but bright red, and it is likely that other observers have noted them, mistaking them for bacilli.

In searching for the gametes presumed to be essential for starting the amebal cycle, these were found in the suspending liquid of the culture medium as larger and smaller, free swimming, flagellate structures, and the indications are that gametic fusion takes place outside of the amebal host, but this observation requires verification. The evidence that the gametes are derived from the sporocysts of the cancer cells, and possibly also from the plasmic substance of the cancer cells, is entirely

Digitized by Google

presumptive. The macrogametes are endowed with rapid ameboid motion and the presence of flagellæ is clearly indicated, but they have not yet been satisfactorily demonstrated. Progressive motion is very slow. The polychrome methylene blue reveals nothing which is structurally characteristic. There is a minute peripheral particle which stains blue, and there appears to be an oval hyaline central body which does not stain at all. The microgametes are very minute, irregular in outline with

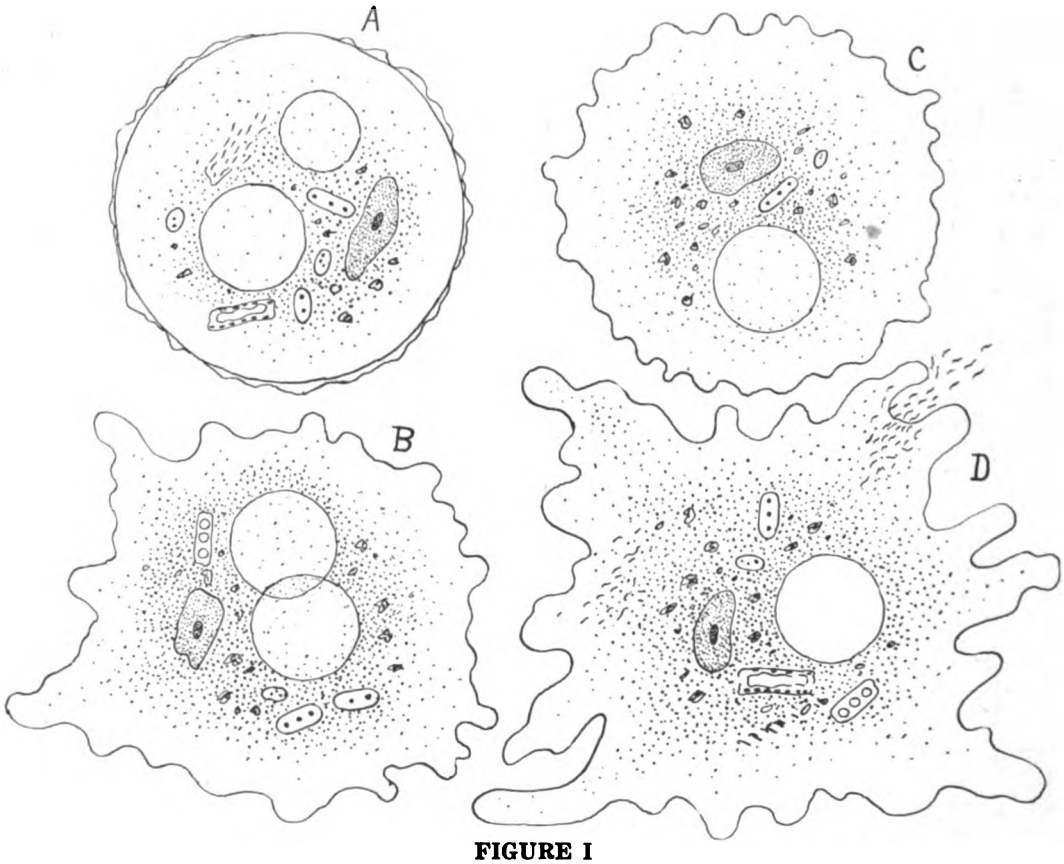


FIGURE I

one or two flagellæ, and they are actively motile.

The ameba referred to appears to be quite variable morphologically. A form with three long very prominent pseudopodia was common as the organisms get away from the cancer tissue fragments in the culture media. The multi-pseudopodial forms predominate near the cancer tissue fragments, and in and upon the cancer tissue fragments the pseudopodia are small or largely wanting. The forms on frog tumor tissue culture were quite free from pseudopodia, the cell margin being occasionally crenate due to very short and blunt pseudopodial formations. The ameba multiplies by septation and the cells show a tendency to agglutinate, and such aggregates may be mistaken for giant forms with many nuclei. A disturbance in the liquid may cause these aggregates to separate and the careless observer may look upon this as cell division by septation. The ameba has the morphological characteristics of a saprophyte and none of the characters of a parasite, and it is apparently obligatively saprophytic in and upon dead and broken-down cancer tissue cells. It feeds upon, or at least ingests bacteria and other particles, besides the cancer tissue elements. It apparently dissolves and digests the limiting membranes of the mature oocyst of the plasmodial cycle.

The ameba will not grow on cancer tissue which has been heated to 100° C., which evidently kills the sporocysts of the cancer cells and consequently inhibits gamete formation. Neither will this ameba develop on turtle muscle medium; nor in stagnant water, nor in hydrant water free from cancer tissue. Such ameba as are in-

Digitized by Google

troduced into media free from cancer tissue at once assume the resting stage.

A common associate of the amebal culture was a diplobacillus, which organism is also common on cancerous growths. This may be a symbiont of the ameba preparing the cancer tissue for its use. As has long been known there are a number of bacterial symbionts of cancer which have received mention in literature and some of them have been given as the cause of cancer.

and are ejected in strings and groups from the oral end of the organism. The Monas is sessile part of the time and at other times free swimming. This organism is very common in stagnant water and in this medium it apparently does not harbor the plasmodial cycle referred to above. A larger Monas species which appeared in old highly contaminated sercoma tissue cultures also revealed a plasmodial life cycle (sexual) of which the spores stained a bright red with the polychrome stain.

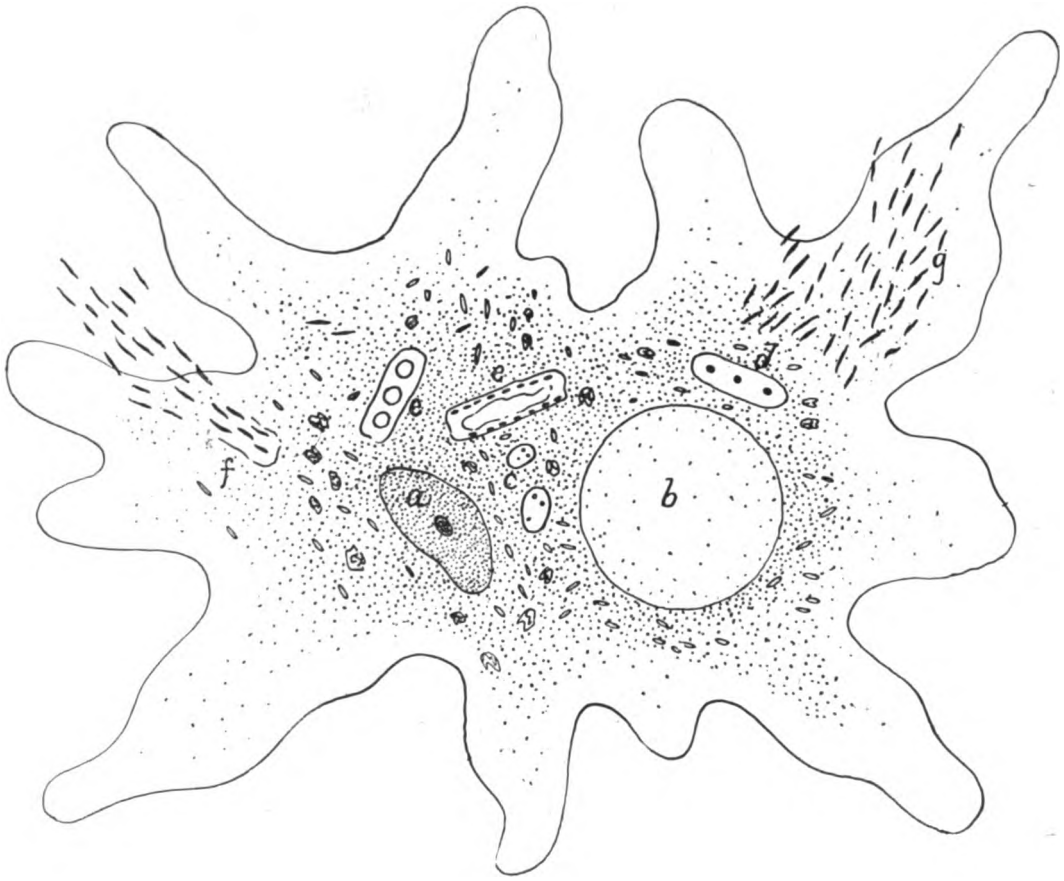


FIGURE II

The Monas species which appeared in the cancer tissue culture as an associate with the ameba, likewise revealed a sexual cycle of some plasmodium. This was given no special attention except to note the morphological characteristics of the organism itself and the plasmodial inclusion. Remarkable staining contrasts were shown with the dilute polychrome methylene blue. The kineto-nucleus stains a deep red, the nucleus a bright blue, the early oocyst stages a light blue, and the mature oocyst a bright red, and the spores a very light blueish tint. The spores are very minute

It would appear that the presence of cancer or sarcoma tissues in culture media had a remarkable effect upon the behavior of certain organisms. The disappearances of the **Paramecium caudatum** has already been referred to. A large very actively motile bacillus resembling the hay bacillus showed a remarkable tendency to clump without loss of activity, the entire clump being actively motile with ameboid mass motion.

The microscopical study of several cases of advanced cancer (rodent ulcer) of the jaw and face (human) revealed the follow-

Digitized by Google

ing: A comparatively small number of amebal forms which resembled those of sarcoma to be mentioned later, with a single usually very large peripherally placed contractile vesicle; vast numbers of **Spirochaeta vincenti with the Bacillus fusiformis** stage of this organism; and also diplobacillus forms, staphylococcus forms and other forms of micro-organisms. In the stained smears the most striking picture was presented by the granular polymorphonuclear leucocytes. These assume

The cultural observations above recorded suggested that the amebal form dominant upon cancer tissue, might be the definitive host of the plasmodium of cancer. Not necessarily of human cancer, but more likely cancer of some cold-blooded animal inasmuch as the cultures developed in and were kept in room temperature. Amebal cultures were injected into frogs (anterior lymph space). One of the frogs which died two weeks after the inoculation, revealed a small tumor-like growth of the

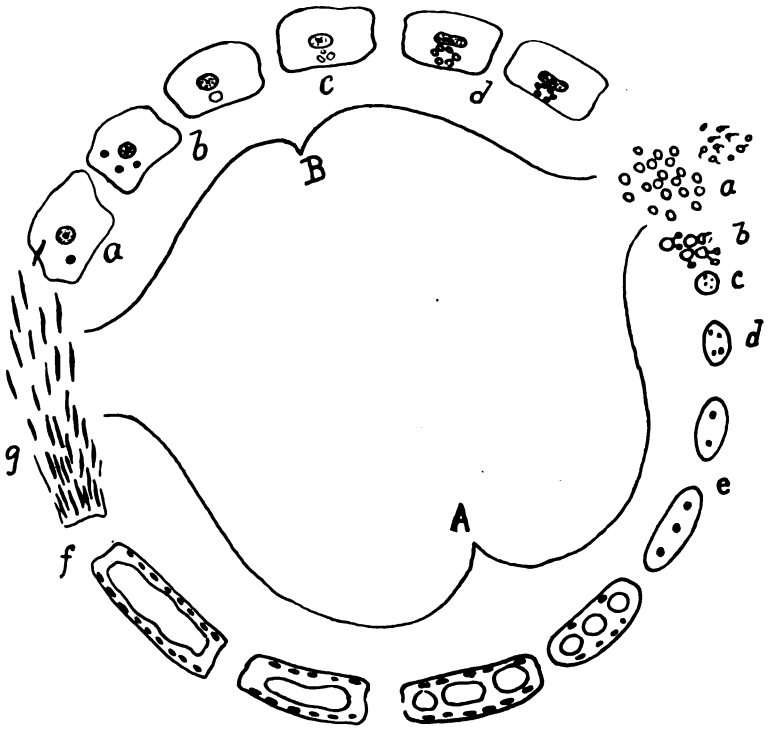


FIGURE III

almost gigantic proportions and they usually contain from two to as many as ten large bacilli. These leucocytes finally break down, setting free the eosiniphile granules which may be mistaken for coccus forms. The Vincent spirochaete no doubt plays a very important part in the destruction of tissues in so-called rodent ulcer of the jaw and face. Numerous large non-motile bacilli were found to be present, presumably the Boas-Oppler bacillus. The working out of the true significance of the relationship of the many sympionts of cancer of the face, for instance, will require many years of careful and painstaking research. Numerous gametes, presumably derived from the broken-down and decomposed cancer cells were present, and also immature as well as mature sporocysts of cancer cells.

right pectoral muscle with inflammatory involvement of the entire muscle. This was pronounced simple inflammatory infiltration of the pectoral muscle by the Department of Pathology, but the presence of a considerable number of stages of sporocyst development in granular co-sinophile polymorphonuclear indicated the beginnings of a cancerous growth. A second frog showed slight inflammatory involvement of both pectoral muscles, but in this case the sporocyst formation was very limited and no further attention was given to the tissue. Some four or five frogs died within three to ten days after inoculation of what proved a very remarkable change in the blood. The stroma of many of the red blood corpuscles gradually paled, became granular and finally disappeared

Digitized by Google

entirely, setting free the nuclei which apparently were unaffected. There was also increased leucocytosis and many of the leucocytes were also destroyed, especially the granular eosinophiles. Death of the animals was apparently due to what might be called general carcinomatosis or cancerous intoxication, without tumor formation, the result of the action of the multitude of spores which were introduced into the circulation via the lymphatics. One animal survived for six weeks. During the fifth week after inoculation it underwent rapid amaciation and extreme weakening of all

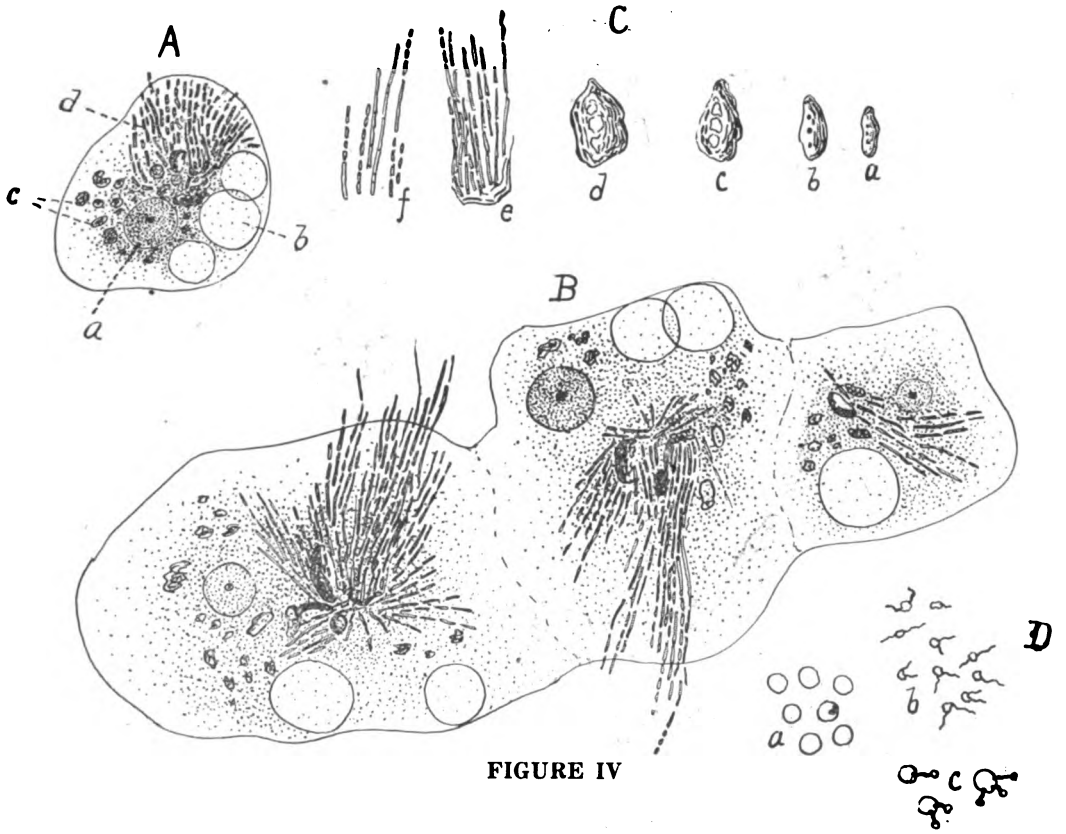


FIGURE IV

muscles including the heart. No sign of tumor formation, or tissue inflammation was observed, but the blood changes already mentioned were very marked.

A large ovarian tumor (sarcoma) removed from a little girl, five years old, showed abundant amebal forms, containing the sexual life cycle of some plasmodium. This ameba showed a remarkable tendency to form aggregates by agglutination, the individual cell being small with a single discoid nucleus and one or more rather indistinct peripherally placed vacuoles and numerous well defined spindling spores. The oocyst development could not be followed out very well as all stages in its development stain a deep blue with the dilute polychrome methylene luble. The mature oocyst is distinctly elliptical. The mature oocyst approaches the periphery of the cell producing a distinct bulging, and it looks as though the entire mass was about to be projected, but instead the limiting membrane of the oocyst ruptures and the spores are ejected into the surrounding liquid. Thus the stained smear will reveal groups of spores by themselves, and others which are still in the interior of the amebal host. The mature spores are spindling and resemble rather closely those of the malarial plasmodium. The amebal aggregates and also the individual cells are without any definite outline and pseudopodial formation is almost unrecognizable.

The sarcoma sporocysts are in some respects different from those of carcinoma. In sarcoma the sporocyst occupies a position in the cell plasm as in carcinoma, but always remote from the nucleus, and the maximum stage of the development in the human host tissue cells never reveals more than six divisions or sporozoites. The gametes of the sarcoma plasmodium appear in considerable numbers in beef extract, in

Digitized by Google

peptone and in pepsin culture media, from two to three days after inoculation with thoroughly crushed sarcoma tissue. The macrogametes are sphaeroidal with some ameboid change in form, and are slowly motile. The macrogametes apparently make their appearance first. The microgametes are very minute, irregular in form with one to three flagellar projections and are quite actively motile. Gametic fusion requires futher study. It apparently takes place outside of the hosts and consists of a flaggellate fusion of one or more microgametes with one macrogamete. The body

The question as to wether or not the sexual cycle of the cancer or sarcoma plasmodium is limited to one species of ameba can not be answed at this time. It would appear that the amebal host of the sarcoma plasmodium survives upon carcinoma tissue, and vice versa, the carcinoma plasmodium and its amebal host in and upon sarcoma tissue. This, however, requires verification.

It is quite evident that the sexual cycle in man, represented by the plasmic structures which have been designated as sporocysts by Borst and others, is very incom-

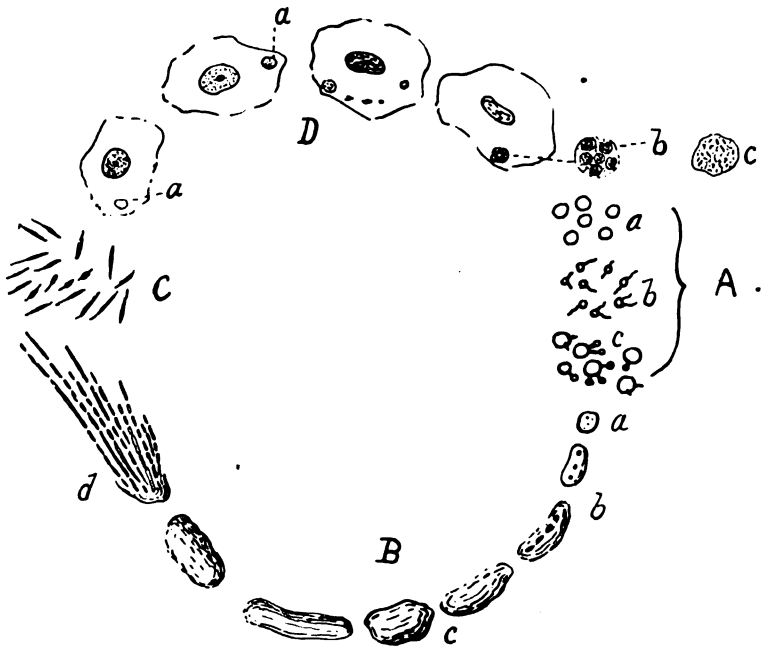


FIGURE V

of the microgamete then apparently disappears and the flaggellum fuses with the plasm of the macrogamete.

The sarcoma ameba apparently does not survive long at room temperature though there were indications of some numerical increase for a few days after the removal of the tumor. The distribution of the amebæ in the sarcoma tissues was not determined, but it is evident that it is not uniform throughout the mass. The amebas are not abundantly present in and upon cancer and sarcoma tumors, and since they are generally associated with other invading organisms and with leucocytes, as well as cellular detritus, it is not surprising that they should have been overlooked by observers, or if seen, considered as mere cancer associates, along with bacteria, yeasts and molds.

plete—that is, only the earlier stages of the sporocyst development take place in certain cells of the cancerous or sarcomatous tissues. The other stages, including gametic formation and gametic fusion, take place in the surrounding liquid. The sporocyst bearing cells must first be brokendown by the decomposition changes initiated by bacterial symbionts and possibly by other influences and factors. It would appear that the macrosporocysts mature first and are sent free before the microsporocysts have even taken definite form. The rotting and the putrefaction of the cancerous tissues thus sets free vast numbers of gametes which finally fuse and the zygotes enter the amebal hosts which live upon the dead and decomposing cancer tissues, and a continuous cancer infection and dissemination is the result. The maximum spor-

Digitized by Google

ocyst maturation corresponds with the height of the putrefactive changes, vast numbers of sporocysts appearing in certain areas of the sarcomatous tissue. The mature sporocysts become yellowish in color and the mature macro- and microsporozoites appear to be imbedded in a gelatinous matrix, and the entire sporocyst is very pliable and undergoes slow ameboid changes in form.

As to how long the gametes survive in the liquid medium has not been determined, and Miss Easton of the Lincoln laboratory.

Nothing definite can at this time be stated as to the true significance of the findings thus recorded. The indications are that cancer, sarcoma and very likely other tumor formations are caused by species of plasmodia, which complete the sexual cycle in species of amebae and possibly in other species of protozoa, as the Monas group, and the sexual cycle in man and in other animals. If this is in harmony

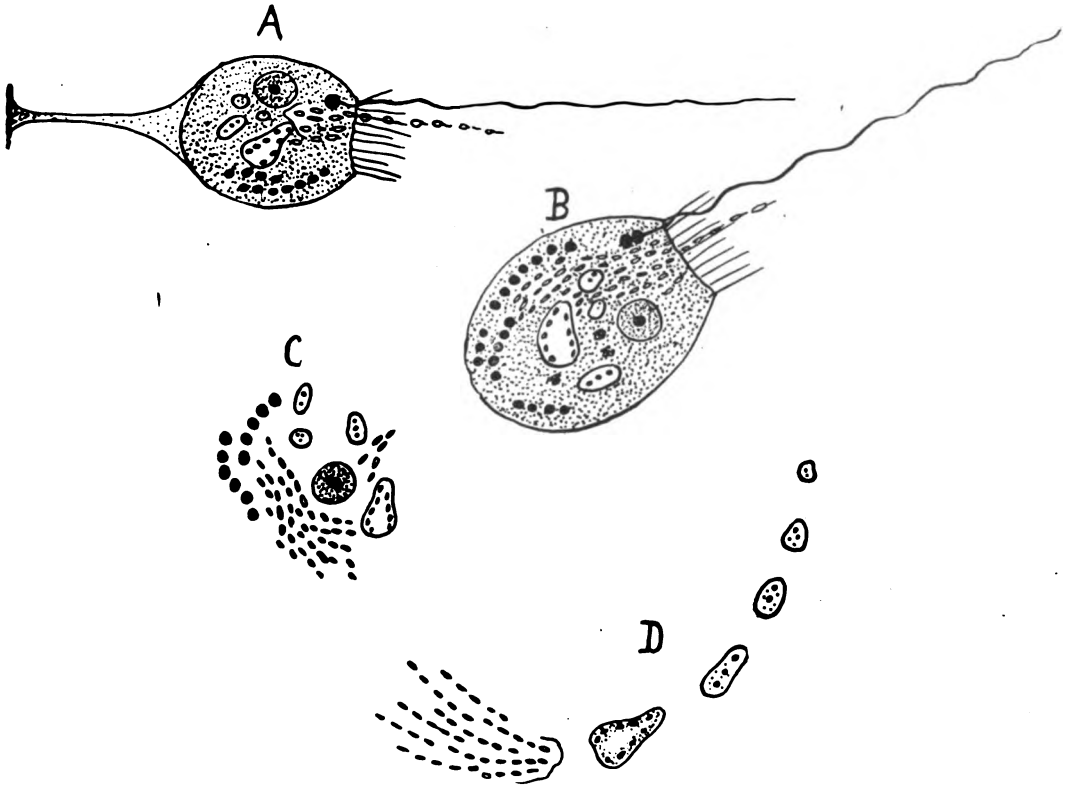


FIGURE VI

but certainly for a period of several days and possibly for several weeks and longer. Every bit of cancer tissue is a source of cancer perpetuation, in association with the amebal host.

The investigations and observations herein recorded were begun about February 15, 1921, and were carried on in the laboratory of pharmacology in the College of Medicine at Omaha, and in the laboratory of the College of Pharmacy at Lincoln (University of Nebraska). Among those who were called upon to check and verify some of the observations herein recorded and who also gave assistance from time to time, were Messrs. Lawson, Flothow, Riddell and Vin Sant of the Omaha laboratory,

with fact, it at once throws new light on the entire cancer problem and serves to explain certain of the cancer treatment results, more particularly the recent success with emetin as employed by Dr. Bertha van Hoosen of Chicago. In a recent article Dr. van Hoosen (Emetin Hydrochlorid in Malignancy, The Medical Woman's Journal, XXIX: 6, pp. 101-116, June, 1919), gives the result of the use of emetin chlorid in 100 cases of cancer of which 94 were advanced and inoperable. The results were astonishing in many cases and would prove conclusively that this drug is a very active destroyer of the cancer infection, causing prompt cessation of growth. The action of this drug, no doubt, depends upon the

Digitized by Google

destruction of the amebal host, inclusive of the plasmodial cycle in the amebal host and the mature sporocysts and the gametes. This would mean the immediate cessation of all further growth and spreading of the infection. The cancer tissues die and elimination by absorption is begun at once, often with fatal toxemis developing within twenty-four hours to several days after the administration of the emetin. Other amebicides have been used with more or less success as is well known. Notably arsenic in the form of arsenical pastes. Arsphenamin (salvarsan) has been tried with variable results. Iodine has been used locally with good effects. Dr. A. Philippson (Neue Wege zur Krebsbehandlung, Fortschritte der Medizin, XXX VII; pp. 485-487, August, 1920), has obtained good results with thiophen in mouse tumor. Based upon the observations thus far made, it does not appear likely that emetin or any of the other well-known amebicides will kill the early sporocyst stages, and unless that is accomplished, recurrence of cancer growth with metastases is likely to follow.

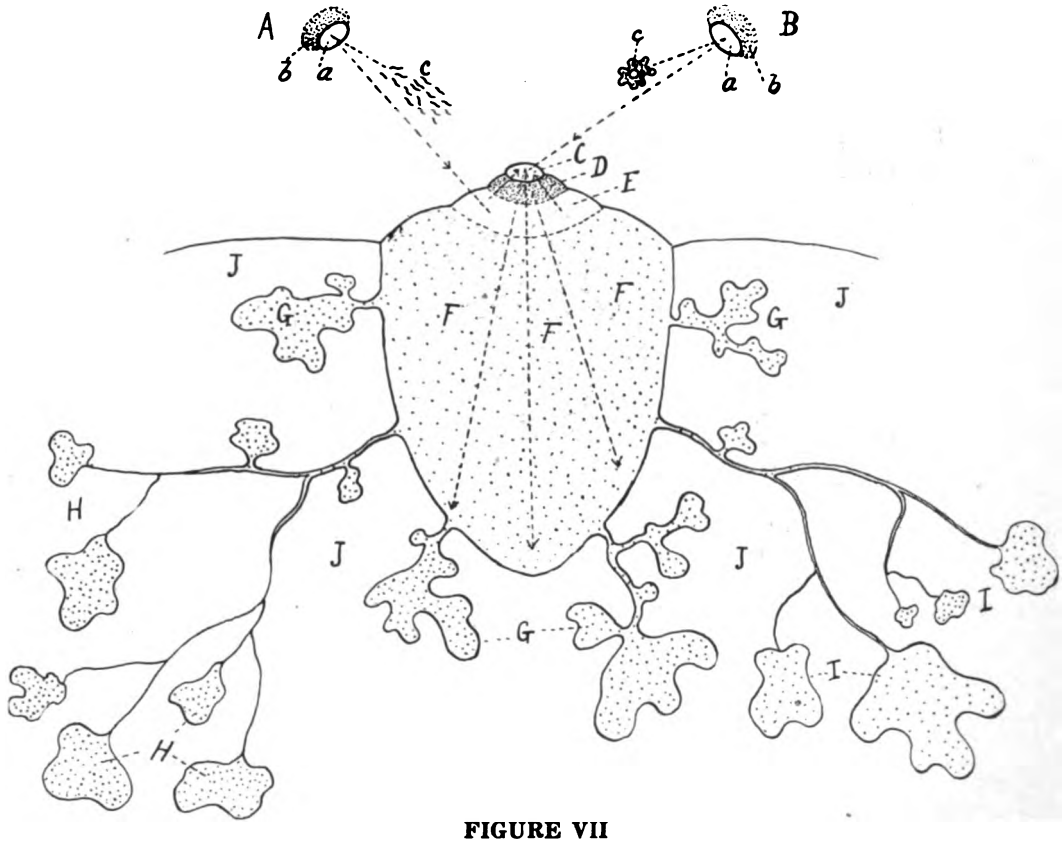


FIGURE VII

The morphological changes in the asexual generation represented by the sporocysts which appear in certain tumor cells are very difficult to trace, but the indications are that such changes always take place outside of the nucleus but in the cell plasm. It first appears as a spherical particle which aparently reveals no differential behavior to most of the stains, although it takes the stains quite readily. There is some increase in size and finally there appear certain plasmic aggregations and the last stage in the cancer cell reveals six structures which for want of a better name may be designated as sporozoites or perhaps more correctly as mother sporozoites. It would appear that the formation of the mother sporozoites acts as the stimulus which induces mitosis of the infected cell, and as long as the infected cell remains alive it will continue to undergo this pathological mitosis resulting in a gradual increase in the cancerous growth, but this growth is apparently very slow, often requiring years of time before there is any appreciable or perceptible tumor formation. Because of the great vitality, or rather because of the great resistance to destructive agents, the sporocysts may survive for years, giving rise to nothing more than a small, but never healing sore or ulceration,

Digitized by Google

and only after a number of the infected and sporocyst bearing cells break down and decompose with liberation and subsequent maturation of the sporocysts and the introduction of the amebal host, can the rapid spread of the growth take place, due to the multiple infections and the metastases into remote tissues and organs via the circulation and the lymphatics.

If the statements herein made are in accordance with fact, then the following would be the explanation of the origin and development of a tumor (as carcinoma and sarcoma, for example).

1. A living spore representing the end product of the plasmodial cycle in the amebal host (the definitive or sexual cycle) enters a receptive living cell of the second host (man or other animal) which starts the infection, and may be called the "cancer" or "tumor starter," or the primary infection. As indicated, the spore probably enters and survives in a polymorphonuclear eosinophile leucocyte, and only when the cell thus infected takes part in some tissue formation, as in inflammatory processes, etc., can a cancerous (or tumorous) growth have its inception..

2. The presence of the sporocysts in the infected cells sets up an abnormal mitosis resulting in the slow development of a cancerous growth. The primary infection makes slow headway. It may take years before there is an appreciable tumor formation, or before there is any clinical sign of cancer or of other tumor formation.

3. By and by some of the older infected cells break down, or the breaking down is hastened by bacterial associates or symbionts and the dead and decomposed tumor cells now serve as a culture medium for the amebal host.

4. The amebal host now enters the field and through the multitudinous spores which are formed by the plasmodial parasite, there follows rapid and multiple secondary infections into the adjacent tissues and metastases into any and all tissues and organs which may be reached via the circulatory and lymphatic systems. This invasion by the amebal host with the resultant reinfection may be called the "cancer accelerator and perpetuator."

5. Even though the amebal host of the cancer plasmodium is obligatively saprophytic upon dead and decomposing cancer tissue, it is in all probability widely distributed in nature, as in water supplies, stagnant water, sewage, soils, in the air, etc., especially water supplies contaminated by tumor products and tumor tissues, no matter how badly decomposed such tissues may be. The resting stages no doubt survive in dirt, dust, in decaying vegetable, as well as animal matter. To control cancer by destroying the amebal host would clearly be a practical impossibility.

6. Much could be accomplished in the way of cancer control through the complete destruction (by cremation, for example) of all dead cancer tissues, no matter what the source of such cancer tissues might be, whether derived from man or from any of the lower animals.

7. All primary tumor formations due to the initial or primary infection should be protected against invasion by the amebal host. This will prove difficult if not impossible.

8. That meat-eating animals should be more liable to cancer and other tumor infections would appear reasonable. There is considerable proof that meat-eating peoples are more liable to cancer than those who live largely on a vegetable diet.

9. Immunization against cancer and other tumor formations is no doubt a possibility and the principal hope lies in that direction. If cures are to be employed they must be administered before there are extensive growths, otherwise the resorption of large amounts of dead tumor tissues will give rise to fatal toxemias. The remedies no matter how effective otherwise, will in all probability not kill or destroy the earlier stages of the asexual cycle in the man, and accordingly the cure is not complete, nor essentially permanent.

Colleges of Medicine and of Pharmacy,
University of Nebraska, Omaha and Lincoln, April 13, 1921.

EXPLANATION OF FIGURES

I.—Form types of amebæ which were grown on human cancer tissue.
A—Resting stage.
B and D—Common forms as they appear on old cancer tissue cultures.
C—Sphæroidal forms showing marginal plasmic crenation. The usual form on frog tumor tissue. (According to Dr. van Hoosen, this is the usual form in ascitic fluid of cancer.)

11.—One ameba much enlarged showing multiple pseudopodia and the usual plasmic inclusions.
(a) nucleus; (b) vacuole; (c) two earlier stages in the development of the oocyst of the plasmodium; (d) stage showing the three sporoblasts; (e) later stages; (f) sporogamy; (g) free spores (d and e stain bright red and the sporoblasts a deep red with polychrome blue. The earlier oocyst stages stain blue and the spores a faint blue with the same dye).

Digitized by Google

III.—The sexual cycle (A) of the amebal plasmodium and the supposed asexual cycle in cancer tissue cells (B).

IV.—The amebal cycle of the plasmodium of sarcoma (ovarian).

A—A single amebal cell showing the usual inclusions; (a) nucleus; (b) vacuoles which usually occupy a peripheral position; (c) granular inclusions; (d) spores escaping from a matured oocyst.

B—Three agglutinated amebal cells showing the usual inclusions as under (A).

C—Stages in the development of the sexual cycle of the plasmodium (a-d stain a deep blue with the polychrome methylene blue and the development is not distinct).

D—Gametes (a) macrogametes; (b) microgametes; (c) fusing gametes (?).

V.—The sexual life cycle (B) of the plasmodium of sarcoma and the supposed asexual cycle (D) in the tumor cells.

A—Macrogametes (a) and microgametes (b) of the sarcoma plasmodium as they appear in culture media (beef extract, pepsin, peptone); (c) fusing gametes. They are free-swimming.

B—Stages in the development of the oocyst.

C—Free-swimming spores.

D—Presumptive asexual cycle of the plasmodium in sarcoma cells; (a) beginning stages of the sporocyst formation within sarcoma cells; (b) mature macrosporocysts; (c) mature microsporocysts.

VI.—Monas species revealing the sexual cycle of some plasmodium.

A—Monas sessile on some organic particle.

B—Free-swimming form.

C—Monas inclusions as they appear in a stained smear preparation.

D—Stages in the development of the sexual cycle of the plasmodium. The nearly mature and mature oocysts stain bright reddish with polychrome methylene blue. The spores are very minute, actively motile and stain a very faint blueish with the polychrome stain.

VII.—Diagram illustrating the beginnings and the metastases of cancerous growths.

A—The "starter infection" or "primary infection" or "primary cancer" by means of the spores (c) derived from the amebæ which survived on the cancerous medium (b). This primary infection resulted in the growth represented by (D) and (E).

B—The invasion by the amebæ (c) which lodges upon and develops in and upon the dead cancer tissue (D) at the point (C), and from this time on the growth and spread of the cancerous condition is very rapid. "Cancer accelerator and disseminator."

C—The saprophytic growth (amebæ) upon the dead and decomposed cancer tissue (D).

F, G, H and I—Cancerous growths, adjacent tissue infiltration and metastases into remote tissues and organs via blood vessels and lymphatics, following the amebal invasion.

J—Normal tissues.

Miss Lathrop Urges Expansion of Work of Children's Bureau, in Ninth Annual Report to the Secretary of Labor

"Plainly the task of a social study is progressive and can not be completed, and thus far the bureau has hardly made a beginning in performing the vast task assigned to it," says Julia G. Lathrop in her annual report to the Secretary of Labor, made public today. This is her ninth and last report as Chief, written on the eve of her resignation last August.

The report sets forth the co-operation which the bureau has effected with various governmental, state and private agencies, and urges further correlation and co-operation in child welfare work. The achievements of the bureau during the last year are described under each of its five divisions, and progress in the bureau's first child-welfare study in our island possessions is reported.

Included in the year's work of the Child Hygiene Division were children's health conferences conducted in small towns and rural communities by the staff of the Bureau's Child Welfare Special, a motor truck fitted up for health consultations. A total of 1,990 children were examined in a section of Kentucky, and numerous cases of malnutrition were found, even among the children of the well-to-do farmers. Personal instructions were given to mothers and teachers in the proper feeding and general hygienic care of children, and efforts were made to see that permanent, active interest in child-welfare measures was established. In Arkansas the "Special" made its way through floods, and over bad roads and steep mountains, reaching six counties in which 1,228 children were examined. As a result, the report states, several communities are undertaking follow-up work.

"What humanity needs, what is necessary to human progress and real intellectual spiritual life, is not uniformity, but liberty and variety. It must be found in the prayers and hymns of the Church, not in the sermons of the ministers nor in creeds ancient or modern."—[Lyman Abbott.

"The World War did not pay. The victor is about as poor as the vanquished; human society is wholly the worse off for the conflict; material and spiritual values are alike involved in destruction by war. The spirit of nationalism itself sat at the root of the world's unhealth."—[Norman Angell.

Digitized by Google

A COMPARATIVE STUDY OF THE BIRTH MORTALITY IN THE ALBINO RAT AND IN MAN*

By HELEN DEAN KING
The Wistar Institute of Anatomy and Biology

[Concluded from last issue]

Causes of Birth Mortality

BARRING accidents, there are six leading causes to one or another of which practically all stillbirths in mammals can be ascribed; (1) malposition of the fetus leading to abnormal development; (2) infectious disease; (3) mechanical obstruction to birth, including size of the fetus; (4)physical condition of the mother; (5) age of the mother; (6) congenital debility. The part played by these various factors in the birth mortality is the rat and in man will be discussed briefly in the following sections.

a. Malposition of the fetus and disease as causes of birth mortality.

Faulty implantation is responsible for the abnormal development of many ova in the rat (Huber, '15), but these ova, as a rule, die at an early stage and are absorbed in situ. Little is known, as yet, regarding the death in utero of older embryos. The examination of a number of gravid females indicates that this phenomenon is not as common in the rats as it is in many other multiparous mammals (Stahl and Henneberg, '02; Hammond, '14). So-called "monsters," which arise through faulty implantation and consequent inadequate nutrition of the embryo, comprise about 1 percent of all human fetuses at birth (Mall, '08), but they are very rare among newborn rats. In the course of an examination of over 50,000 young rats, I have found but four such fetuses, and in all of these the body appeared perfectly normal, but the head was hydrocephalic.

Infectious diseases are responsible for an appalling number of deaths among human offspring and among the young of cattle, but no cases are known, as yet, in which stillbirths in the rat could be ascribed to this cause. Neither the rat scourge, so-called "pneumonia," nor other diseases common to the rat, are transmitted to the fetus as far as is known. From the evidence at hand, therefore, infectious disease can be eliminated as a cause of stillbirth in the rat, though illness of the mother, as will be shown later, is a potent factor in birth mortality.

b. The size of the fetus as a cause of birth mortality

Since the size of the fetus is an important factor in human birth mortality (Düsing, '84; Nichols, '07; Dutton, '10; Hirsch, '13), it is conceivable that this factor may also play a rôle in the birth mortality in the rat. The following series of observations was made to determine this point.

Fifty-nine litters of rats, in which one or more members were stillborn, were obtained at birth. Each of the young rats was taken from the mother as soon as it was cast, the placenta was removed, and the body weight taken immediately. Data regarding the age and general physical condition of the mother at the time of parturition were also recorded, since these factors had to be taken into account as possible causes of birth mortality.

The body weight records for the 306 living and for the 137 stillborn young in these fifty-nine litters, are shown in table 5. For purposes of later analysis the data are arranged in three groups according to the physical condition of the mother at the time of parturition.

In table 5 the final averages, computed from individual, not from grouped data, confirm the findings of Donaldson ('06), of Jackson ('13), and of King ('15), that in the rat the living male is heavier at birth than the living female. They show, also, that this same relation is found among the stillborn; the difference between the body weights of the two sexes averaging about 0.30 gram in each case.

In each of the three groups given in table 5, the living young, both males and females, have a heavier birth weight than the stillborn young, the final averages indicating a difference of 0.30 gram for each sex. Obviously the body-weight relations between the living and the stillborn young would be just the reverse of that shown above, if the size of the individual is a determining cause of birth mortality. When the average body weights for the largest of the living, and the largest of the stillborn in each group are compared, the result shows conclusively that the size of the fetus is not a cause of death at birth, since in all three groups the average body weight of the largest living individual of both sexes exceeds that of the largest stillborn individual in the corresponding group. In this instance, also,

Digitized by Google

the final averages show a difference of 0.30 gram in favor of the living young.

In man multiple births are the exception, not the rule as in the rat, so in this respect conditions in these two species are radiantly different. It is not so much the weight of the fetus as the size of the head that is responsible for the death of many infants, particularly boys. The deaths from this cause and those due to other forms of mechanical obstruction to birth comprise about 10 percent of all human stillbirths, according to various observers.

TABLE 5

Sex and body weight data for living and for stillborn young in fifty-nine litters of albino rats. Groups arranged according to the physical condition of the mother at the time of parturition.

Group	Physical Condition of Mother	Living Young						Stillborn Young						Percentage stillborns in total number of young.
		Number of individuals		Average body weight all individuals		Average body weight largest individuals		Number of individuals		Average body weight all individuals		Average body weight largest individuals		
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
				gms.	gms.	gms.	gms.			gms.	gms.	gms.	gms	
1	Good	68	51	4.57	4.28	4.91	4.52	21	21	4.20	3.75	4·50	4.11	26.1
2	Poor	43	60	4.24	4.17	4.45	4.42	46	28	4.15	4.08	4.40	4.31	41.8
3	Good, but female young	43	41	4.12	3.84	4.53	4.40	12	9	3.56	3.80	3.85	3.85	20.0
		154	152	4.41	4.13	4.66	4.39	79	58	4.11	3.81	4.36	3.99	30.9

The data given in table 5 show that the stillbirths formed 30.9 percent of the total of 443 births in fifty-nine litters of albino rats. In collecting these data there was no error, since the litters were obtained at the time of birth and all of the young recorded. In the total of 253 litters containing stillborn young, that were obtained during a period of five years, the birth mortality among 1817 individuals, as registered, was 22.8 percent (table 1). The difference between these two sets of data would seem to indicate that at most 8 per cent of the stillbirths in the colony were not recorded. This error is not sufficiently large to invalidate any of the conclusions drawn from the records as they stand.

c. The physical condition of the mother as a cause of birth mortality

It requires but little experience in the handling of albino rats to determine from the general appearance of an animal whether or not it is in good physical condition. Alert animals of large size, having clear eyes and thick, glossy hair, are usually in excellent condition and free from disease. On the other hand, labored breathing, rough hair, dark red eyes, sluggish movements, and relatively light body weight, are all evidences of poor physical condition and generally indicate that the animal is in an advanced stage of "pneumonia."

Table 6 shows the age, body weight, and general physical condition of the fifty-nine albino females that gave birth to the young whose body-weight data are given in table 5.

The first group in table 6 comprises twenty females that were apparently in good physical condition at the time of parturition, as was indicated not only by their general appearance and behavior, but also by the fact that they weighed, on the average, over 15 grams more than the "standard" body weight for breeding females of the same age (Donaldson, '15). The average body weights of their young at birth exceeded those of the young cast by females in poor condition (cf. group 1 and group 2; table 5), thus adding more evidence that "rats in good physical condition, bear young with a birth weight considerably above that of the young cast by females in poor condition" (King, '15). Each female in this group gave birth to

Digitized by Google

a litter that contained, on the average, two stillborn to six living young (table 5). Since these stillbirths can not be ascribed either to mechanical obstruction to birth, to abnormal development, nor to infectious disease, it would appear that they must have been caused by some other prenatal condition that adversely affected the vitality of the young.

Examining the history of the mothers, as kept on record cards, it was found that five of the females in this group were nursing young at the time that the litter containing stillborn young was cast; eight of the females gave birth to very large litters containing ten or more members; three females were over fifteen months of age at the time of parturition. No reason can be assigned for the presence of stillborn young among the offspring of the remaining four females in this group. It is possible, perhaps, that these females were in early stages of "pneumonia" which had not as yet altered either their general appearance or their body weight, but had already affected their body metabolism in such a way as to adversely influence the development of the fetal young.

TABLE 6

Data regarding the age, body weight, and general physical condition of the fifty-nine female albino rats that cast the litters recorded in Table 5

Group	General Physical Condition of Females	Number of Females	Average age of Females at parturition	Average body weight of Females at parturition	Standard body weight for average age of Females at parturition (Donaldson, '15)
			days	gms.	gms.
1	Good	20	202	224.4	209.1
2	Poor	26	244	190.7	220.0
3	Good; but female very young	13	99	143.7	146.2

The second group in table 6 comprises twenty-six females that were obviously in bad physical condition at the time that their litters were cast. These females were, on the average, some 30 grams under the "standard" body weight for breeding females of the same age, and the birth weights of their young were very low (table 5). It is of interest to note that the percentage of stillbirths in the total number of young cast by these females was relatively very high (cf. group 1 and group 2; table 5). The majority of the females in this group were obviously suffering from "pneumonia;" three of them were in such an advanced stage of the disease that they had to be killed as soon as the litter was cast.

d. The age of the mother as a factor in birth mortality

It has already been shown that litter size in the albino rat is influenced to a considerable extent by the age of the mother (Slonaker, '12; King, '16a), and it is possible that the viability of the young at birth may also be affected by this same factor.

As already noted, three of the females in the first group of table 6 were over fifteen months of age when casting a litter that contained stillborn young. These females appeared to be in good physical condition, yet their litters were very small, and seven of the eleven young cast were dead at birth. The third group of table 6 comprised thirteen females that had an average age of only ninety-nine days when casting their first litter. Although each of these females was seemingly in good health, twenty-one in the total of 105 young were stillborn (table 5.) Since none of the females in these two groups showed any evidence of disease at the time of parturition, it is probable that the age of the mother, and not incipient "pneumonia," was the chief factor responsible for the high birth mortality in their young. The age of eighteen months marks approximately the end of the reproductive activity of the albino female, and toward its close, as at its beginning, there seems to be a strong tendency for the females to cast fewer individuals in a litter and a relatively greater proportion of stillborn young.

Digitized by Google

This phase of the subject will be discussed later.

In considering the causes responsible for stillbirths among human offspring, the age of the mother is a factor that is usually ignored or assigned a very minor rôle. Various series of reliable statistics, however, indicate that the birth mortality is relatively high in children of very young and of very old mothers, so evidently the age factor has greater influence in this respect than is generally assumed. The trend of statistical evidence on this point is shown by the following examples. Whipple's ('19) analysis of the birth statistics for the city of Boston during the period from 1891 to 1910 shows that: "The percentage of stillbirths, arranged according to the age of the mother, gave the very high percentage of 11.1 percent for mothers under 20 years of age, 4 percent for age group, 20-24; 5.1 for 25-29 years; 4.4 for 30-39 years; and 3.3 for ages over 40."

Far more comprehensive data regarding the effect of the age of the mother on birth mortality among the young are given by Davis ('20), in his study of the births in the registration area of the United States during the year 1918. In a total of 1,372,329 births in which the age of the mother was ascertained, there were 46,122 stillbirths. The percentage of stillbirths was 3.9 for mothers under twenty years of age, 3.2 percent for mothers under thirty-nine years, and 5.4 percent for mothers over forty. This study indicates that the percentage of stillbirths is much higher in children born to mothers at the beginning and at the end of the reproductive period, and its findings are confirmed by the birth statistics gathered by The Children's Bureau (Duke, '15; Duncan and Duke, '17; Allen, '19; Dempsey, '19), which have already been given in table 3 of the present paper. They are shown again in table 7, arranged according to the age of the mother at the time that the birth of her child occurred. It will be noted that table 3 gives a total of 5,456 births, while table 7 registers only 5,452 births. This discrepancy is due to the fact that in four cases the age of the mother was not ascertained.

Nearly 90 percent of the births registered in table 7 were those to women between twenty and thirty-nine years of age, the remaining 10 percent were evenly divided between women that were under twenty and over forty. As this is about the normal distribution of births relative to the age of the mothers, a comparison of the percentages of stillbirths as given seems permissible.

TABLE 7

Data for human births, collected by the U. S. Children's Bureau (Table 3), arranged according to the age of the mother at the time of parturition

Mother's age in years	Total number of births	Living births	Stillbirths	Per cent stillbirths in total number of births
Under 20	282	263	19	6.95
20 to 39	4,882	4,683	199	4.07
40 and over	288	268	20	6.94
	5,452	5,214	238	4.36

Table 7 shows clearly that in this set of records, as in those given by Whipple and by Davis, the percentage of stillbirths is correlated with the age of the mother. In table 7 the stillbirths formed only 4.07 per cent of all births to women at the zenith of the child-bearing period, while they were increased to nearly 7 percent in the births to women at the extremes of the reproductive period.

When the data in table 7 are arranged according to the order of the birth, as is shown in each of the papers in which the separate sets of data are given, it is found that the percentage of stillbirths is higher for the first births and for those after the sixth than for the intermediate births. A series of birth statistics arranged in this manner is, of necessity, an age series, and it is more probable that the observed variations in the percentage of stillbirths depend on the age factor rather than on the number of the pregnancy.

Digitized by Google

It has been claimed that the high birth mortality in children of very young mothers is due chiefly to the mother's ignorance of the proper hygienic laws that should be observed by pregnant women. This explanation can not be offered to account for the increase in the percentage of stillbirths among the children of women over forty, however, since births at this age are rarely those of the first pregnancy. It seems probable that both at the beginning and at the end of the reproductive period physiological conditions incident to age are responsible in great part for the high birth mortality among the children born at this time.

e. Congenital debility as a cause of birth mortality

Stillbirths among human offspring not traceable to a well-defined cause are generally ascribed to "congenital debility," this term being used to indicate a lack of sufficient vitality in the fetus to render postnatal existence possible. Various series of investigations show that a very considerable proportion of stillbirths are attributed to this cause. For example, in 201 cases of still-births at term studied by Brothers ('96), over 50 percent were classed as due to "congenital debility," while Waldvogel's ('13), studies led to a similar conclusion.

In the sense in which the term "congenital debility" is used above, practically all stillbirths in the rat might properly be grouped under this heading, since in all cases so far found impaired vitality of the fetal young was seemingly the direct cause of the birth mortality; the underlying cause is discussed in the following section.

General Discussion

This study has shown that in two important respects the statistics for the birth mortality in the albino rat accord in a most striking manner with those for man: (1) the sex ratio in the living young at birth is practically the same in both forms (about 105.5 males to 100 females); (2) the great excess of males among human stillborn finds its parallel in the high sex ratio which characterizes the stillborn of the rat (129 males to 100 females). In one respect only the birth records for these two forms do not agree. The normal percentage of stillbirths in human offspring (4 to 5 percent) is at least twice that in the albino rat (table 2). This difference, however, is readily explicable. Factors which are responsible for about one-half of all human stillbirths, i. e., mechanical obstruction to birth, accidents, faulty implantation, and infectious disease, ordinarily play little, if any, part in the birth mortality in the rat. If stillbirths due to these causes are eliminated, the birth mortality among human offspring falls to about 2 percent, which is close to the percentage of stillbirths which is seemingly normal for the albino rat when large numbers of breeding animals are kept under fairly uniform conditions of environment and of nutrition. The stillbirths in man which thus seem comparable to those in the rat are those that, in general, are attributed to "congenital debility," this term, as already stated, being used to indicate that the fetus possesses such a low state of vitality at the end of term that it is incapable of independent existence. From the evidence at hand the great proportion of stillbirths in the rat can be attributed to the same cause.

The question at once arises as to the cause of this impaired vitality in the fetus and whether it is possible to control it so that the percentage of stillbirths will be materially decreased. If we consider those cases in the albino rat in which the stillborn young were obtained at the time of birth and the age and physical condition of the mothers noted (tables 5 and 6), it is found that the great majority of them occurred in litters of females, that were suffering from disease, chiefly "pneumonia," or in those of females at the extremes of the reproductive period, while in a few cases the litters were very large or were cast by females that were suckling young at the time of parturition. Extensive series of breeding experiments extending over a period of a dozen years, and covering the birth of many thousands of rats, led me to believe that practically all stillbirths in this animal occur under one or another of these conditions. The one factor which seemingly might have affected the vitality of the fetal young in all of these cases is malnutrition.

The nutrition of the fetal young is a very complex process, and in its broadest sense it includes the absorption and the assimilation of food by the mother as well as its transmission through the placenta to the young. Any factor or physiological condition that adversely affects the normal metabolic processes upon which any phase of embryonic nutrition

Digitized by Google

depends, therefore indirectly influences the development of the young and may impair their vitality to a greater or less extent.

Let us consider in some detail the effect of the various factors that are apparently responsible for stillbirths in the rat. The rat scourge, "pneumonia," is a wasting disease, and as such profoundly affects all of the normal life processes in an animal affected with it. The living young cast by females having this disease in an advanced stage are usually very small and emaciated at birth, and their vitality is at such a low state that they are difficult to rear even when suckled by a vigorous foster-mother. There can be no question but that the fetal young suffer thoroughout the entire course of their intra-uterine existence from malnutrition, since the illness of the mother must interfere with her power to assimilate food and to transmit it to her offspring. With such a handicap to their normal development, it is not surprising that a large proportion of the young are not able to survive at birth.

The suckling of young, particularly if the litter is above the norm (seven) in size, is as a rule a severe strain on the nutritive reserve of the mother, as is shown by the fact that she usually loses considerable weight during this period unless she is in excellent health and abundantly supplied with food. Not infrequently a lactating female is also carrying a second litter. If one or both of these litters are large, the amount of food that the mother can assimilate and supply to her young, in addition to her own needs, is inadequate for the proper nutrition of all of the individuals concerned. The result is that the suckling young usually grow very slowly and show every evidence of being underfed, and the gestation period of the fetal young is lengthened from one to several days, owing doubtless to the fact that the implantation of the fertilized ova is delayed (King, '13; Kirkham, '16). Here again malnutrition is obviously a factor that impairs the vitality of the fetal young and tends to increase the proportion of stillbirths. A similar explanation can be offered for the presence of stillborn young in litters of exceptionally large size. In these cases the inadequate nutrition of the young is indicated by the fact that all members of the litter are, as a rule, of small size and under normal weight at birth.

The fact that the proportion of stillborn young in litters cast by very young and by very old females is markedly greater than that in litters cast by females at the height of their reproductive activity indicates that the age of the mother is a factor of importance in birth mortality. Donaldson ('06) has shown that one year of a rat's life is equivalent to thirty years of human life. At the age of eighteen months, therefore, a female rat corresponds physiologically to a woman of forty-five years, and it can hardly be a coincidence that the age marks approximately the end of the reproductive activity in both species. The onset of puberty does not, however, correspond as closely in the two forms, since rats breed at three months of age. Age has a profound effect on all of the normal activities of the body, and it is not surprising, therefore, to find that the immaturity of the young mother and the physiological changes in the uterus incident to the approaching menopause seemingly inhibit the metabolic processes concerned with the nutrition of the fetal young. In such cases the young often suffer from impaired nutrition, and consequently the birth mortality among them is much greater than that among the offspring of females at the height of their reproductive activity.

It has been repeatedly demonstrated that a mature, well-developed albino female that is in good physical condition at the time of conception, will, if abundantly supplied with proper food during the entire gestation period, cast a litter containing only living, vigorous young that have relatively heavy birth weights. A special experiment recently made to test this point has given rather astonishing results. The young cast by a mature female abundantly supplied with rich food during the gestation and lactating period were twice the normal weight at birth, and at thirty days of age, when weaned, they were over 200 percent above the average weight of rat at this age. At sixty days of age the males in this litter had an average body weight of 260 grams, which is some 300 per cent above the "standard" weight for males of this age. On the other hand, inadequate feeding of breeding females invariably leads to the production of small litters containing undersized individuals in which there is a high percentage of stillbirths. This fact was fully demonstrated in the early stages of an inbreeding experiment with these

Digitized by Google

animals which has been carried on for some years in our colony (King, '18). Even when the food supply is ample, the present study has shown that in lactating females, in those carrying a very large litter, and in those suffering from disease or breeding at one extreme of the reproductive period, physiological conditions within the body of the mother may adversely influence the various processes upon which the nutrition of the young depends, and thus lead in many cases to the death of a considerable proportion of the young at birth.

Conditions of human existence are so complex and so artificial in many cases that one would hardly venture to assert that the underlying cause of all cases of "congenital debility" was malnutrition of the fetus due to the age or to some abnormal physical condition of the mother, yet the evidence at hand is strongly in favor of such a view. Inadequate nutrition of the young is certainly a potent factor in the birth mortality of the rat, and it probably plays an important rôle in the birth mortality of other mammals, including man. The maintenance of pregnant females under environmental and nutritive conditions favorable to the health of the mother and to the adequate nourishment of the fetal young throughout the entire gestation period, not merely near its close, would, therefore, undoubtedly lead to the birth of more vigorous young and to a marked decrease in the number of abortions and of stillbirths.

Whenever large groups of human birth statistics have been analyzed it has been found that the mortality among the males is very high, the sex ratio for the stillborn being at least 25 points higher than that in the living young. This same phenomenon appears also when a large series of birth data for the rat are examined (table 1), and it likewise is present in statistics for the horse, if Goehlert's ('82) records are reliable. Since the disparity between the sex ratios for the stillborn and those for the living young in these various groups of statistics is fairly constant and much too great to be considered as within the range of normal variation in the sex ratio, there must be some fundamental cause, founded on a difference in the constitution of the male and female organisms, that is responsible for the excessive mortality among he males at birth.

Düsing ('84) discusses this subject at considerable length, and he concludes that: "Die Knaben sterben also während Fötallebens häufiger als die Mädchen, weil viele derselben sich unter ungünstigen Ernährungsverhältnissen ausbilden, während sie, da sie durchschnittlich schwerer sind, sogar mehr Nahrung beanspruchen als die leichteren Mädchen." Since from the time that the sexes can be distinguished at about the sixth week of pregnancy the excess of males among aborted embryos is greater the earlier the age at which abortion occurs (Rauber, '00; Nichols, '07; Auerbac' '12; Carvallo, '12), inadequate nutrition can not well be considered as the primary cause of the greater mortality among male fetuses in general.

A most suggestive hypothesis that may have a very important bearing on this problem has recently been advanced by Lillie ('17) in his study of the action of sex hormones in producing the "freemartin" in cattle: "It seems probable that the disturbance of the equilibrium that protects the male from the sex hormones of the mother would result in malformations of the male sex characters to a degree commensurate with the extent of the disturbance. There is, therefore, here a possible explanation for the greater mortality among male fetuses." Our knowledge of the action of sex hormones is as yet too meager to enable us to advance a definite theory regarding the influence of these factors on fetal mortality.

Nichols ('07) states that three explanations are open to consideration to account for the heavy mortality among boys at birth; "(a) the initial numerical preponderance of males; (b) the greater proportion of deaths of male fetuses occurring during parturition owing to their large size; and (c) the intrinsically much greater mortality of males than of females in the earlier period of life, both antenatal and postnatal." Nichols assigns only a minor rôle to the first two of the causes enumerated above, and he concludes that:

"Obviously the main cause of the great preponderance of male stillbirths resolves itself into the question of the comparative mortality or death rate of the male and female sexes during the intrauterine period of existence. . . . it is therefore obvious that the male constitution is intrinsically weaker, less hardy, and more susceptible to morbific and mortific influences, and has less vitality and resisting power against disease than the fe-

Digitized by Google

male. The cause of this innate disparity of vitality between the two sexes we do not know; but the fact that it exists, that the antenatal mortality and death rate of males much exceeds that of female fetuses, accounts for the great excess of male over female stillbirths."

In the light of recent researches in heredity it is conceivable that the inherent dissimilarity between the sexes as regards their constitutional vigor, which has been discussed in detail by Geddes and Thomson ('01), may have its basis in the germinal structure of the fertilized egg. From the work of Guyer (10) and of von Winiwarter ('12), on the spermatogenesis of man, and of Allen ('18), on the spermatogenesis of the rat, it is known that in both of these mammals the spermatozoa are dimorphic, one kind of spermatozoa having one more chromosome than the other; both kinds of spermatozoa are produced in equal numbers, and both kinds, as far as known, are equally functional. The current theory of sex determination postulates that the spermatozoa containing the extra, or X-chromosome, are "female-producing;" those lacking it are "male-producing." The fertilized ovum that is to develop into a female thus contains two X-chromosomes, while that having only the X-chromosome received from the mother develops into a male. May not the difference in the constitutional vigor of the two sexes depend, in some way, upon the fact that the chromatin content of the female ovum is greater than that of the male ovum? One might suggest, perhaps, that the excess of chromatin brought into the egg by the "female-producing" spermatozoan influences the ensuing interaction of the chromatin and the cytoplasm in such a way that the embryo becomes endowed with a constitution that is more stable and more vigorous than that of the embryo developing from an egg in which the initial amount of chromatin is less. Such an hypothesis is, of course, only tentative. Until our knowledge of heredity and of the sex-determining mechanism is greatly increased it will be futile to theorize as to the probable cause for particular characters associated with one sex or the other which seemingly do not depend upon the action of specific genes.

The great excess of males among aborted and stillborn fetuses is readily explained if we assume that, from the time of conception, the embryo, that is to develop into a male has a constitution inherently weaker than that of the embryo that is to become a female. During the gestation period many factors, such as disease, unfavorable environmental conditions, physiological changes incident to age, etc., may lessen the mother's power of assimilating food and of transmitting it to her fetal young. Under these conditions, a male fetus possessing a relatively low initial vitality would be more severely handicapped by inedequate nutrition or by conditions unfavorable to normal development than would a female fetus having a greater initial vigor of constitution and more power to resust unfavorable environmental conditions. One, therefore, would expect to find the facts exactly as shown by various series of investigations cited in this paper—namely, that at all stages of gestation and at birth the mortality among the males is far greater than that among the females.

Summary

1. Birth statistics collected during a period of five years show that in a total of 31,670 newborn albino rats 415, or 1.3 percent, were stillborn. Allowing for the probable error in recording the data, it would appear that under normal environmental conditions not more than 2 percent of rat fetuses are dead at birth.

The most accurate statistics available indicate that the normal birth mortality in man is about 4 percent. There are no data of value regarding the percentage of stillbirths in other mammals.

2. The normal sex ratio in newborn albino rats, including the stillborn, is about 107 males to 100 females; in man the sex ratio for the living young at birth averages about 105.5 males to 100 females, and if the stillborn are added, the sex ratio rises to about 108 males to 100 females.

3. In each year that the mortality records for newborn rats were taken there was a pronounced excess of male among the stillborn, the sex ratio in the total number of such individuals being 129.3 males to 100 females (table 1).

Large series of birth statistics collected in many different countries show that the sex ratio among stillborn children is very high, averaging about 130 to 140 boys to 100 girls. The excess of boys becomes greater the earlier the month of pregnancy in which the fetus dies.

4. In the rat the percentage of still-

Digitized by Google

births seems to vary somewhat with the seasons, being least in the spring and greatest in the autumn months, when the breeding animals are suffering from the devitalizing effects of high temperature during the preceding summer (table 4). The birth mortality among human offspring does not, apparently, vary to any appreciable extent at different periods of the year.

5. Data collected during one year show that the mortality among young rats during the first three days after birth was 2.3 percent, or slightly greater than the birth mortality in the colony during the same period (2.16 percent); infant mortality in man during the first month after birth is about 5 percent, or 1 percent higher than the birth mortality.

Postnatal mortality in the rat is largely due to accidental causes which tend to kill more females than males; in man the death of many infants is traceable to prenatal causes which seemingly are more fatal to boys than to girls.

6. Factors responsible for a considerable proportion of the stillbirths among human offspring, such as infectious diseases, faulty implantation, mechanical obstructions to birth, including the size of the fetus, apparently play no part, ordinarily, in the birth mortality of the rat.

7. From the data obtained it appears that malnutrition is directly responsible for most of the stillbirths in the rat. Factors influencing the food supply of the fetal young, such as the physical condition and the age of the mother, the suckling of the young, and the size of the litter carried, are therefore the chief causes of birth mortality in the rat.

8. Available evidence indicates that both in the rat and in man the male fetus is intrinsically weaker than the female, and therefore more susceptible to prenatal influences inimical to normal development. A tentative hypothesis is advanced that the difference in the constitutional vigor of the sexes has its basis in the different chromatin structure of the male and female zygote.

Mortality From Tuberculosis

The Department of Commerce, through the Bureau of the Census, announces that nearly 100,000 deaths were due to tuberculosis in the death registration area of the United States in 1920, and if the rest of the United States has as many deaths from this cause in proportion to the population, the total number of deaths from tuberculosis in the entire United States for 1920 was about 122,000, while for 1919 the number is estimated as 132,000, or 10,000 more than for 1920.

The trend of the tuberculosis death rate is downward. In the registration area of the thirty-three States which show rates for more than one year, 29, in the following table, show their lowest rates for the year 1920. The tuberculosis death rate in the registration area in 1920 was 114.2 per 100,000 population against 125.6 per 100,000 population for the year 1919.

Medical Women in Public Health Posts—a Good Example for American Medical Women in Great Britain

The question of the inequality of payment and treatment of medical women as compared with men in public health posts has frequently been brought before the Council, and has been found to be a matter of considerable difficulty. It is important that all cases of unequal treatment, even if only surmised, should be brought to the notice of the office as early as possible, in order that prompt and effective action may be taken if considered desirable.

In the case of Glasgow, when it was reported that three married medical women would possibly be dismissed from service under the Corporation, a strong letter of protest from the Medical Women's Federation, together with one on similar lines from the British Medical Association, resulted in the Committee of Health reconsidering its decision and reversing its previous recommendation.

The Council at its meeting therefore passed as a resolution: "That each association be asked to appoint one of their members correspondent on matters of the Public Health services as they relate to women." It is hoped that the secretaries of the association will furnish the medical secretary with the names of their correspondents as soon as they have been appointed."

Reinforcing Anti-Syphilitic Therapy

It is generally recognized that in the treatment of syphilis it is not that the arsenicals and mercurials have a definite spirocheticidal effect "per se," but rather that these agents increase specific resistance against the virus of syphilis and render the tissue an inhospitable host. It is logical to assume that if the general tissue resistance is increased that this so-called specific resistance likewise will be increased. Reasoning along these lines many physicians make it a rule to put their syphilitic patients on Cord. Ext. Oi. Morrhuæ Comp. (Hagee) as a routine measure during the period that they are under treatment for the luetic affection. This product not only has the therapeutic effect of increasing bodily strength, but has a further advantage in extreme palatability.

Digitized by Google

American Women's Hospitals

Reconstruction Committee of the Medical Women's National Association Headquarters, 637 Madison Ave., New York

Commendation of Work of American Medical Women in Turkey by a Rear Admiral of the United States. Also Letter from the Ministry of Serbia.

DR. ESTHER LOVEJOY, Chairman

Admiral Bristol, United States High Commissioner, made a speech to the members of the Near East Relief group visiting in Constantinople, in which he spoke of the value of the American medical women in Turkey during the period of reconstruction. I afterward had a very interesting talk with him regarding the work of the American Women's Hospitals, and he wrote a letter to our board containing recommendations for our future activities. Excerpts of his letter are as follows:

THERE is one feature about medical assistance amongst the Mohammedans that is not usually realized, and that is, that Mohammedan women most generally will not accept the attendance of men physicians and surgeons except with special arrangements for their treatment. Thus it seems to me that your association could do the finest kind of work in working with the Mohammedan races in rendering medical assistance, both immediate and in the future by training women as physicians and surgeons, not to mention the absolutely necessary training of nurses. Then, too, this seems a most opportune time for you to begin your work because the Moslem women are beginning to assert their independence and are striving to come out of their harems and take their natural positions in every-day life of the world.

"The Near East Relief seems to me an excellent field for your association to assist in immediate medical assistance. There is another important work that you could assist, and that is, 'The American Hospital of Constantinople.' This hospital is organized primarily to give an American hospital where our Americans who are doing business in relief work and educational work in the Near East can always receive American treatment and care; also it is intended that the hospital shall be for the general good of every one in this part of the world. It absolutely shows no preference as regards any of the races or nationalities of this part of the country except as regards Americans, and then only to those Americans who subscribe to the support of the hospital. At the present time this hospital is directly connected with Constantinople College for Girls and receives a part of its support from this college. This arrangement is made because the college has recently started a medical course, and the hospital is essential to the carrying on of this medical course.

Digitized by Google

"There is another very important way in which your Association can support medical assistance for the Near East, and that is, by rendering assistance to the Constantinople College in maintaining and developing its medical department of education for the women of this part of the world. Such assistance might be rendered either directly, or it might be indirect assistance by using your influence at home to interest others in supporting the medical work of the college. I would suggest that your Association in working in this part of the world should from the very beginning demonstrate an absolutely impartial attitude towards all races and nationalities and establish a reputation for being truly American in every particular. Your doctors and hospital superintendents, head nurses, and so forth, should be strictly American, and they should be carefully instilled with the idea that they must keep clear of all entanglements with any of the different factions, races and nationalities in this part of the world.

"I am arranging to bring you in contact with a committee of Turkish women that I believe are representative women of Constantinople. I will then leave you to form your own opinion in regard to whether or not these women need your assistance. In the same way I hope that you will meet committees of women of the other races, Christian and Moslem of Constantinople. Above all things, I would not have you get identified with any one of these races to the exclusion of any of the others.

"Finally, it seems to me that this is the psychological moment for an association of women like yours to step in the Near East and render the greatest amount of assistance that is possible in any one place in this world at the present time. I assure you I will assist you in any way I possibly can along the broad lines that I have pointed out. I believe we can work and get plenty of assistance on the principle of a square deal to every one.

"Sincerely yours,
(Signed) "MARK L. BRISTOL,
"Rear Admiral, U. S. N.
"United States High Commissioner."

Letter from V. Petrovitch, Chief Minister of Serbia.

Dr. Etta Gray, Medical Director,
American Women's Hospitals,
Veles, Serbia.

Dear Doctor Gray:

Your mission came to our country when relief was most needed, for the enemy had left on all sides devastation and ruins, and our population famished naked and destitute. As a result of this situation the children suffered mostly, for they were defenseless.

Your help, medical treatment and hospital service saved us a great number of our children's lives. For this our Ministry expresses our deepest gratitude and begs you to ask your friends at home—the philantrops of our children—to make it possible for your mission to continue until our institutions are stronger and able to take over your well-organized hospitals and continue your work.

The Ministry thanks you once more for the relief and medical help given until the present time, and begs you to influence your organization to continue your work here.

By order of the Minister of Social Politics.

(Signed) V. PETROVITCH, Chief.

Digitized by Google

Report of Chairman of Public Health Committee National Council of Women Given at Philadelphia, November 15, 1921.

By DR. ELIZABETH THELBERG, Chairman
Poughkeepsie, N. Y.

Madam President and Members of the Council:

It is difficult to avoid repetition in making a report of the public health work of our country concerning matters which have occured since the Christiania meeting of the Council last year. But since many of our members present were not at Christiania, I will trespass upon the patience of our president and others who were there, and refer in this report to progress which has been made along some of the lines upon which I reported in Norway.

May I first call your attention to the resolutions which have been prepared by my committee, which speak for themselves, in relation to the importance of carrying on the venereal disease campaign so wonderfully begun during the war? What we did with enthusiasm and success for our great encampments must be continued for our civil population, both men and women. Unless the Federal Government continues support, this marvelous work organized in 47 States of the Union will suffer neglect and diminution. In 3 states I regret to say cessation of interest, though not of need, is already apparent. Nevertheless, it is encouraging to report 427 clinics in active operation, 8,000,000 pamphlets distributed and 1,576,000 cases treated in the last year. That is a significant figure showing the immense need of continuation of this work. A phase of the work very much to the fore at present is the tracing up, from every case of venereal disease, of unreported relatives presumably also infected, testing and treating them if necessary.

I have the honor to report the reappointment to the Advisory Council of the Public Health Service of our country. May I call your attention briefly to some of the salient features of the service? Smallpox has been practically eradicated in the Philippines. Bubonic plague is controlled in all our out-lying territiories, as is yellow fever and cholera. Pellagra, beriberi, and leprosy are receiving most efficient care, in the case of the first two which are deficiency diseases mostly preventive. Leprosy, now that an almost certain cure has been found for it, bids fair to be eradicated, as the concealed cases are coming forward and asking for institutional care with the hope of cure.

The Surgeon-General was kind enough to invite me to the meeting in Boston last June, of the State Health Officers from every part of our country. It was an unheard of thing for a woman to be present. The greatest courtesy was shown me, and I was called on several times to take part in discussion, my remarks being thereafter published in the proceedings of the meeting. I was proud to be present, representing you members of the Council, and I found the meetings most profitable in enlarging my conception of the variety and importance of the health work being done in different states. The work being done in relation to the control of malaria is extremely interesting. Much drainage, screening, etc., looking to the control of the mosquito has, as you know, been done. Nevertheless there are large areas in which drainage is impossible. In these cases the health officer of South Carolina advanced the method of disinfection of the blood by effective treatment with the antidote quinine until the blood should be rendered incapable of transmitting the disease to the mosquito. It has been found by series of careful experiments in the laboratories of New Orleans that the blood of a malaria patient may be completely freed of these germs by proper doses of quinine kept up for a sufficient length of time, ten grains daily for two months; all too often in such a case the symptoms are cured but not the disease. Consequently the mosquito becomes infected and spreads the disease to new patients. If every experiment proves this to be true, there are great economic possibilities involved.

Papers were read upon diphtheria, typhus fever, deer fly fever of Utah, the part plague by ground squirrels in the transmission of the plague and a most encouraging report was made concerning the cure of trachoma by operation. Most important papers were read upon immunity, disinfection, stream pollution, upon hook-

Digitized by Google

worm disease and upon the purity of milk. The question of typhoid fever is fortunately in most places at present a past issue. It is interesting to know, however, that its existence in the past has been the occasion for organization of State Health Departments in the States. I wish that I might spend more time in reporting to you other subjects taken up and that I might give you more details upon those already mentioned. I feel that as a Council we are greatly indebted to Surgeon-General Cummins and to Assistant Surgeon-General Pearce for their attitude in recognizing our great interest in the public service and in admitting our representative to a share in such meetings. I must mention only by name the subjects along which steady interest and improvement is being shown, for Miss Gertrude Seymour, President of the Association of Women in Public Health, has come over from New York to join us for a few hours, and I wish to give her part of my time that she may tell you of this interesting new association soon to become a part of our Council. Dr. Yarros, who has spoken so effectively during the last two or three days, is one of the most active members of this association. Before introducing Miss Seymour I must mention the progressive work in school health service comprising attention to oral hygiene, nutrition of the underfed, physical education both for the normal and for those children needing corrective work, mental hygiene and school nursing. Constant extension is being made in most of our states along these lines. It would please me very much if the health committee existing in each of our thirty national organizations would send me each report as it is presented along these and other lines of health interest. We must not forget the strong interest being manifested in our country as well as in Canada upon the subject of Health Centers. I believe the county should be the unit in this matter, as is the case in the care of the tubercular, and I trust that the day may not be too far off in which the county shall also be the unit for the care of those defective mentally, not insane, but feeble-minded. It would be the salvation of our country if a compaign analogue to that which has done so much for the tubercular would sweep the country for the care of the feeble-minded. I suggest as a slogan for such a campaign, "**No mentally defective uncared for in our country by 1930.**" Dr. Thelberg then presented Miss Gertrude Seymour, president of the Association of Women in Public Health Work, who briefly but most interestingly described the work of her association.

Resolutions Presented by Dr. Thelberg and Passed by Council

The following resolutions were presented by Dr. Thelberg and passed by the Council:

In view of the fact that unless Federal aid continues to be extended to the States, the standards in clinics and education will deteriorate, and what has been so wonderfully built up will be lost—

(a) Be it resolved, That The National Council of Women urge Congress to again appropriate a sufficient sum of money to the U. S. Public Health Service, V. D. division, to enable the States to continue the campaign against venereal disease.

(b) In view of the fact that prostitution is one of the fundamental causes of the spread of venereal disease—

Be it resolved, That The National Council of Women deeply interested in this great problems, and realizing fully the physical and moral menace of prostitution to the home and to the race, urges Congress to again appropriate funds for the aid of all social protective measures against this evil.

(c) In view of the destructive effects of the venereal diseases upon the race, and since there are many phases of diagnosis and treatment requiring further study,

Be it resolved, That The National Council of Women urges that further appropriations be made by Congress to carry on research work in these lines,—and also to promote research work in education and methods for the presentation of instruction in sex hygiene, so greatly needed by all classes of our population.

(d) Resolved, That The National Council of Women endorse the efforts of the U. S. Public Health Service, V. D. Division, in the holding of institutes for lay women which furnish to them a more scientific understanding of venereal disease control and social hygiene, and further urges upon the membership of its National Societies hearty co-operation in all communities where such institutes may be held.

Digitized by Google

Resolution

As proxy of president of the Medical Women's National Association, I ask your attention to the following resolution:

Whereas, The foreign work of the American Women's Hospitals is the work of one of the constitutional societies of the American National Council of Women;

Whereas, It is and has been an incomparable relief, life-saving and sight-saving measure to thousands of women and children; and

Whereas, By its work in the training of native nurses it will leave behind it forever in Turkey, Serbia and other countries a new conception of American womanhood, which will serve as an inspiration and example to the struggling women of these countries, struggling for life, peace and freedom; be it therefore

Resolved, That The National Council of Women endorse this work, and extend to these workers representing us in war-stricken countries our warmest sympathy and support.

Resolution in Re: Narcotics

Brought by Mrs. Louis Hertz of San Francisco, Chairman of Committee on Legislation of the National Jewish Council of Women:

In consideration of the widespread and debasing use of narcotics throughout the United States, and the attempted subversion of laws in this regard—

Be it resolved, That The National Council of Women, representing eleven million American women, extend endorsement, sympathy and aid, wherever and whenever possible, toward the effort for Federal and State control of importation, production and sale of those agents, harmful to the bodily, mental and spiritual ideals of progressive civilization.

Resolved, That we, representing the eleven million women, constituent membership in the National Council of Women of America, endorse by every means in our power the efforts of all organizations in our country, having for their objects the promotion of more children of the fit and the prevention of increase of the Defective.

Report of Medical Women's National Association of the National Council of Women.

FOUNDED in 1915. First President, Dr. Bertha Van Hoosen, a distinguished surgeon of Chicago. Served two terms; was succeeded by Dr. Angenette Parry, of New York City, an eminent obstetrician of Vienna training.

The third president was Dr. Etta Gray, of Los Angeles, Cal., who went at once to Servia, where she is still serving as Director of the American Women's Hospital Service.

Dr. Martha Tracy, Dean of the Woman's Medical College of Pennsylvania, was the next president of the association.

Dr. Elizabeth Bass, a professor at Tulane University in New Orleans, is the present head of the organization, and Dr. Grace N. Kimball, of New York, formerly of Van, Turkey, is the president-elect.

The Medical Women's National Association meets annually prior to the date of the opening of the Annual meeting of the American Medical Association, membership in which is the qualification of admission to M. W. N. A. This day is devoted to the discussion of matters of special interest to women physicians, to reports of committees, and to the furthering of good fellowship. The members are then free to attend the sessions of the A. M. A., to which they all belong.

The most important committee is the Medical Service Committee, formerly called the War Service Committee, of which Dr. Rosalie Slaughter Morton was chairman 1917 to 1918, Dr. Mary Crawford from 1918 to 1919, and Dr. Esther Lovejoy 1919 to 1922. Dr. Lovejoy served in France under the American Red Cross, and remained with that organization until after the Armistice. She is the author of the book called "The House of the Good Neighbor," dealing with the effects of the war upon the women and children, to which Hoover wrote the foreword for the second edition.

Dr. Lovejoy is here, and will speak upon the work to the A. W. H.

ELIZABETH B. THELBERG,
Proxy for President Bass.

Nov. 12, 1921.

Digitized by Google

The Report of Medical Service Committee of Medical Women's National Association.

By DR. ESTHER LOVEJOY
Proxy for President

Madame President:

Through the Medical Service Committee, the Medical Women's National Association has conducted the American Women's Hospitals in France, Serbia, Asia Minor and the Russian Caucasus during the last four years.

FRANCE—Three hospital centers with dispensaries, out-patient, dental and ambulance service conducted in war zone prior and subsequent to Armistice. Over 22,000 sick people cared for; between 800 and 900 surgical operations performed; helped establish permanent maternity hospital at Blois and permanent dispensary at Lavallois-Perret.

SERBIA—Five hospital centers conducted in Serbia during last two years. Training classes for Serbian nurses maintained; over 90,000 consultations recorded; a large number of surgical operations performed; eye clinics conducted; over four hundred neglected cases of cataract operated upon and sight restored to people who had been blind for years.

ASIA-MINOR—All hospital, dispensary, medical and surgical work in the Derjindje, Bardizag and Ismid regions for the past year—general hospital, children's hospital, trachoma hospital, small-pox and tuberculosis camps with training classes for native nurses. This district was the recent battelfield of the Greeks and the Kemalists.

RUSSIAN CAUCASUS—Similar work in Russian Caucasus has just been undertaken. There is a children's hospital, general hospital, trachoma hospital and a hospital for skin diseases; all overcrowded. We are obliged to pick and choose among the sick who are begging for admission.

This work is conducted entirely by women. The cost has been small; about a million dollars since the beginning.

Other Work

Through the Committee on Health Education the Medical Women's National Association participated in establishing the Women's Foundation for Health.

Respectfully submitted,
(signed) ELIZABETH BASS, M.D.
President Medical Women's Nat'l Assn.

Representatives of the Medical Women's National Association at the Biennial Meeting of the National Council of Women in Philadelphia, November 10-16, 1921.

Voting Delegates:

Dr. Elizabeth Thelberg, President's Proxy, Poughkeepsie, N. Y.

Dr. Esther Lovejoy, 637 Madison Avenue, N. Y.

Dr. Lida Stewart Cogill, 1831 Chestnut Street, Philadelphia, Pa.

Dr. Rachelle Yarros, U. S. Pub. Health Service, Washington, D. C.

Dr. Margaret Kuyk, Richmond, Va.

Dr. Flora Pollack, Baltimore, Md.

Visiting Delegates:

Dr. Florence Meredith, Philadelphia, Pa.
Dr. Ann T. Gibson, Philadelphia, Pa.
Dr. Florence E. Kraker, Philadelphia, Pa.
Dr. M. T. Butler, Philadelphia, Pa.
Dr. Mary T. Green, Castile, N. Y.
Dr. Martha E. Osmond, Tacony, Pa.
Dr. Harriet MacSorley, Philadelphia, Pa.
Dr. P. Bourdeau-Sisco, Baltimore, Md.
Dr. Rosalie S. Morton, New York, N. Y.
Dr. Mary Buchanan, Philadelphia, Pa.
Dr. Jennie M. McKee, Philadelphia, Pa.
Dr. Charlotte Abbey, Philadelphia, Pa.
Dr. W. T. Nelson, Philadelphia, Pa.

Digitized by Google

THE WOMEN OF CHINA

Have More Freedom Than is Generally Supposed. An Interesting Letter from Miss Lee Lien, Canton, China.

THE women suffrage movement in China has been satisfactory, although not yet successful. The movement began at Canton in February this year, and commanded the support of a majority of the women in Kwangtung. The support of the broad-minded men, who believe all people are born equal, was not entirely lacking. Several appeals were made to the Governor of Kwangtung; a Bill was forced into the State Congress, but most unfortunately it was not passed. Everything which is worth fighting for takes time to win! The leaders and all the supporters of the movement are by no means discouraged by such a check. We are working harder even, and winning the additional support of a good many more people. We trust victory will be ours soon.

As a Chinese woman, I believe I am in a position to inform our sisters in the other countries. The Chinese women have enjoyed much freedom even before, as well as now. And they will enjoy the same in the future. Normally, no Chinese woman has ever been the slave of man as has been thought by a good many people abroad. Truly speaking, the conception and the custom toward a woman's position are both changing; that is, the new order is coming to take the place of the old one. The difference between the new and the old is the **kind** of freedom that she shall enioy. It is absolutely not the question of freedom or no freedom. Perhaps I shall be able to make my meaning clear by answering the five questions stated.

(1) **The Marriage Law.**—There has not been any written law governing marriage excepting what the tradition and custom have handed down. The old parental-arranged marriage has been broken down, and becomes void almost everywhere, except in some of the backward villages. Engagements are initiated by the young people concerned, but they must gain the consent of their parents in order to make the union acceptable to society.

(2) **Property.**—There is no law to assure nor to declare against a woman holding or inheriting property. But it has been customary that a widow who has no children holds no property, and a girl inherits a part of her father's property.

(3) **Guardianship of Children.**—No woman has ever been legally guardian of her children. But by virtue of her position traditionally, she is.

(4) **The right to her own earnings.**—Until very recently no woman, unless under exceptional conditions and necessity, has ever played the roll of earning. But whatever she earns always goes to her.

(5) **Divorce Law.**—The divorce law was introduced and made formal recently. It is equal between both sexes.

The anti-prostitution movement just began a few months ago. And the wave of such a movement is growing stronger day by day. It is hardly possible to tell what will be the true state of moral legislation when my letter reaches your desk. Perhaps it will be quite a different thing a few days from now. At the present licensed prostitutes exist, and they are examined compulsorily. All houses of prostitution must be in a place approved by the city government, and, besides this much, the state has not gone any further by way of regulation.

Hoping this letter will meet what you want to know, and we are always glad to furnish any information that we can give, and are able to co-operate with the Alliance. With greetings and regards,

LEE LIEN.

Women's Physical Training Institute, Canton, China, August 15, 1921.

Digitized by Google

The Medical Woman's Journal

Official Organ of The Medical Women's National Association.

Published by
THE MEDICAL WOMAN'S JOURNAL
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Subscriptions:
Domestic—$3.00 per annum in advance

REMITTANCES should be made by check, draft, registered letter, money or express order.

A subscriber should notify the publishers *promptly* of any removal, giving *Old* and *New* address, that there may be no break in the service of the JOURNAL.

In order to discontinue a subscription, notice must be sent direct to the JOURNAL and all arrears paid in full to date.

COPYRIGHT.—Matter appearing in THE MEDICAL WOMAN'S JOURNAL is covered by copyright, but no objection will be made to the reproduction in reputable medical journals of anything appearing in the columns of the JOURNAL if proper credit be given.

The Editors and publishers are not responsible for the views of contributors.

NEWS.—Our readers are requested to send us items of news of a medical nature, also *marked* copies of local newspapers containing matters of interest to women physicians. We shall be glad to know the name of the sender in every instance.

Contributions and books to be reviewed, and all business communications should be addressed to
MARGARET HACKEDORN ROCKHILL, Managing Editor, Cin'ti.

AN IMPORTANT CONTRIBUTION ON THE SUBJECT OF CANCER

The paper which appears in this number of the "Journal" under the title, "A Preliminary Report on the Probable Cause of Cancer and Other Tumor Formations," by Dr. Albert Schneider, of Omaha, is the third paper on this subject that has appeared in the past few months. In the August number of "Surgery, Gynecology and Obstetrics," Dr. John W. Nuzum wrote on "A Critical Study of an Organism Associated with Transplanted Carcinoma of the White Mouse." In the October number of the "Edinburg Medical Journal," Dr. J. Young published the article, "Organism Obtained from Carcinomatous Growths." All of these papers deal with the parasitic theory of cancer which as far back as 1879 has had its adherents. Arnold, Pianese, Cornil, Hauseman, Amann and others have been convinced and with further work unconvinced of the germ theory.

Cohnheim's theory of embryonic inclusion of epithelial elements was published in 1875 and later made a strong appeal to the profession. Ribberts later modified and somewhat reconstructed the Cohnheim theory, but no practical results came out of it. During the past ten years the germ and embryonic inclusion theories have given place to the metabolic theory, and at present is the most popular with the teaching faculties of our medical schools.

This is not the first time that the "Journal" has shown its interest in the germ theory of cancer. Dr. Bertha Van Hoosen, approaching the subject from an opposite direction, has shown us the results of treating cancer as a germ disease.

Assuming the protozoic origin of cancer she administered large doses of emetin with very gratifying results. These articles appeared in the January number, 1919, and in the June number, 1920.

If the germ theory of cancer can be proven and it can be demonstrated that cancer is a general disease with local manifestations, we will still have use for the cautery, the X-ray, radium and surgery in addition to general medical treatment. But the greatest benefit will, however, not be in the treatment of cancer, but in working out blood reactions for diagnosis and preventive medication. We urge upon our readers to carefully peruse this article and to pass it on to their friends.

A LETTER AND A PLEA FOR FUNDS

BY CHAIRMAN OF MEDICAL SERVICE COMMITTEE

While the Disarmament Conference is in session at Washington our women physicians and nurses are running hospitals and dispensaries in the Balkans, Turkey and the Russian Caucasus. This work is conducted entirely by women. They, too, are writing treaties of peace—not on scraps of paper, but in the hearts of thousands of children, the men and women of tomorrow.

Seven hospital and dispensary centers have been conducted in Serbia and Asia Minor. Training classes for nurses have been maintained; over a hundred thousand consultations recorded; nearly five thousand very sick people, mostly children, admitted to the hospitals; a large number of surgical operations performed; small-pox and tuberculosis camps: trachoma hospitals and eye clinics conducted.

The Serbian Minister of Social Politics has urgently requested that this work be continued until it can be carried by local agencies, and the United States Commissioner at Constantinople has written to the Executive Board of the American Women's Hospitals with special reference to the work and humanitarian influence

Digitized by Google

of American women physicians (social missionaries) in that disordered country at this special period.

I have recently returned from Southeastern Europe, and I am writing to college women in the United States asking them, according to their means, to help other college women carry on the work of the American Women's Hospitals in countries where war and pestilence are not subject for academic discussion, but are cruel realities.

Christmas season is here. God has blessed us as a nation. We are rich powerful, free from famine and pestilence. Let us unite to help the children who are paying the price of war. Skillful, devoted women are personally serving the sick in wretched, isolated places. Will you help sustain them in this good work?

Kindly send contributions to Dr. Sue Radcliff, Treasurer.

ESTHER LOVEJOY, Chairman.

MAKE YOUR HOTEL RESERVATIONS NOW FOR THE ST. LOUIS MEETING

The Statler Hotel has been secured as headquarters for the Medical Women's National Association during the meeting, May 22-23, 1922.

Only by prompt action was it possible to secure reservations at this hotel, and because of the great demand for rooms for use of the members of several medical organizations which will meet in St. Louis at this time, and in fairness to the hotel and to the applicants for accommodations in this hotel, the block of rooms reserved can not be held indefinitely.

All members of the Medical Women's National Association who wish rooms in the Statler Hotel must send in their names not later than January 15, 1922, for all rooms not taken by that time will be released.

Rates—double room with twin beds and bath, $7 per day for two persons. Address communications to L. Rosa H. Gantt, Recording Sec'y-Treas., Spartanburg, S. C.

A school for the teaching of arts and trades is soon to be opened in New York City by the Local Labor Union No. 48, of the Italian Cloak and Suit and Skirt Makers. With the assistance of two important Italian manufacturers, the Union has purchased a building of its own.

A Woman Physician in Charge of Dispensary for Indian Women and Children in Fiji

On July 24th, in Suva, a dispensary for Indian women and children was opened by Mrs. McOwen, wife of the Acting Colonial Secretary, in the presence of Mr. McOwen, Dr. and Mrs. Hunt, Dr. and Mrs. Strathairn, Dr. Mildred Staley, members of the hospital staff, and a large gathering of Indians. The well-known Indian storekeeper, Deoki, placed a building at the disposal of the Government, who have leased it from Deoki for a season. The building has been equipped and fitted out suitably, and contains a roomy waiting-room, operating-room and dispensary.

The dispensary will be in charge of Dr. Mildred Staley, who will visit it on certain days, having associated with her there a certificated Indian nurse, Mrs. I. Perashad, wife of an Indian missionary, who is a fully trained dispenser, nurse, anæsthetist and midwife.

This first purely Indian dispensary for women and children will prove of great value to the Indian community in Suva.

Dr. Mildred Staley adds that since the opening of the dispensary it has been well patronized by the Indians, and that she and Mrs. Perashad were kept very busy. For this dispensary the Government accepted Dr. Staley's ideas and estimate for the choice, adaptation and furnishing of the building. The leading Indians (150) of the community were invited to the opening ceremony.

Rotary Clubs in several cities are working to stimulate high school attendance. In Harrisburg, Pennsylvania, a Rotary Club committee looks up every boy who graduates from junior high school and fails to enroll in high school. If he has left to help support the family, but wishes to continue in school, the club tries to find employment out of school hours and Saturdays that will permit him to go on.

In McAllen, Texas, the Rotary Club adopts the last grade in the elementary school and endeavors to persuade the pupils to continue in school. Talks are given in the schools by different members of the club in which each speaker describes his own vocation, pointing out its advantages and disadvantages and giving facts which will aid the pupils in choosing a vocation.

Digitized by Google

...N MEDI...

113

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 1 | JANUARY, 1921 | $3.00 PER YEAR IN ADVANCE. $3.50 FOREIGN COUNTRIES. SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D., Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D., Chicago, Ill.

GRACE PECKHAM MURRAY, M.D., New York, N. Y.

ISABELLE THOMPSON SMART, M.D., New York, N. Y.

CONTENTS

	Page
Women in the Lead Industries	1
A Discussion of Medical Practice Relating to Health Conservation	8
The Sheppard-Towner Bill	11
American Women's Hospitals	15
Notes and Comments	19
Editorial	22

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO

To whom all business communications should be addressed

THE MEDICAL WOMAN'S JOURNAL, Publishers

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

When digestive disorders find your patient in a distressed condition they require immediate relief, that is why we suggest six (6) BELL-ANS dissolved in a glass of hot water prior to your own systematic treatment.

Bell-ans is now universally used.

Digitized by Google

¶ *The* Correlated Enzymic forces *of*

Lactopeptine

are **real**—not theoretical—*and* this accounts for the position *of* **therapeutic importance** which it has occupied for so many years.

LACTOPEPTINE meets the clinical needs *of* the practical physician *and* responds to the laboratory demands *of* the physiological chemist

POWDER — ELIXIR — TABLETS

THE ORIGINAL MULTIPLE ENZYME PRODUCT *Lactopeptine* SAMPLES ON REQUEST

THE NEW YORK PHARMACAL ASSOCIATION
YONKERS, N. Y.

Your Debilitated Patients

need especial attention during the next few months to fortify them against the prevalent diseases of Fall and Winter. The defensive forces of the body need to be reinforced, and to accomplish this, good hygiene, the best of food, and a dependable tonic are essential. To meet this last need

Gray's Glycerine Tonic Comp.

has no superior.

Probably no other remedy enjoys the confidence of more physicians than Gray's Glycerine Tonic. The reason is plain, for they know it will do what they expect it to—that they can count implicitly on its increasing functional activity hroughout the body, improving the nutrition and raising the vital resistance.

The Purdue Frederick Company
135 Christopher Street **New York City**

Digitized by Google

¶ *The* Correlated Enzymic forces *of*

Lactopeptine

are **real**—not theoretical—*and* this accounts for the position *of* **therapeutic importance** which it has occupied for so many years.

LACTOPEPTINE meets the clinical needs *of* the practical physician *and* responds to the laboratory demands *of* the physiological chemist

POWDER — ELIXIR — TABLETS

THE ORIGINAL MULTIPLE ENZYME PRODUCT *Lactopeptine* SAMPLES ON REQUEST

THE NEW YORK PHARMACAL ASSOCIATION
YONKERS, N. Y.

Remember

what

Gray's Glycerine Tonic Comp.

accomplished during the past two years in the treatment of influenza. Many physicians, by its judicious use, fortified their patients against the dangers of this dreaded disease. How widespread and serious will it prove this year? Gray's Glycerine Tonic Comp. will no doubt be indicated and physicians may count on obtaining the desired results from its use.

A tonic of known dependability that can be prescribed at any season of the year.

The Purdue Frederick Company

135 Christopher Street **New York City**

Digitized by Google

1/3

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 2

FEBRUARY, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
Women in the Lead Industries	23
Suggestums	31
Child Welfare Work in London	37
Special Report—Women's Foundation of Health in New York	40
Dr. Norton's Experiences in the Near East	43
Editorial	46
Notes and Comments	47

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO

To whom all business communications should be addressed

THE MEDICAL WOMAN'S JOURNAL, Publishers

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

When digestive disorders find your patient in a distressed condition they require immediate relief, that is why we suggest six (6) BELL-ANS dissolved in a glass of hot water prior to your own systematic treatment.

Bell-ans is now universally used.

Digitized by Google

113

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 3

MARCH, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
The Adrenalin in Hypertension of the Climacteric.	51
Women in the Lead Industries	57
Suggestums	63
Madame Curie	70
Book Reviews	71
Hospitals and Colleges	72
One of the Pioneer Women in Medicine	75
Editorial	79

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO

To whom all business communications should be addressed

THE MEDICAL WOMAN'S JOURNAL, Publishers

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

When digestive disorders find your patient in a distressed condition they require immediate relief, that is why we suggest six (6) BELL-ANS dissolved in a glass of hot water prior to your own systematic treatment.

Bell-ans is now universally used.

Digitized by Google

HAY FEVER MEMORANDA

EARLY SPRING TYPE.—Patients whose hay fever develops in late March, April or beginning of May, should be tested with Pollens of early flowering trees.

LATE SPRING TYPE.—Patients whose hay fever develops in the latter part of May, or during June, should be tested with the Pollens of the chief grasses, such as orchard grass, timothy, red top—and certain early flowering weeds.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover early and late Spring, **also Summer** and **Autumn.**

Literature and List of Pollens on Request.

The Arlington Chemical Company
YONKERS, NEW YORK

Remember

what

Gray's Glycerine Tonic Comp.

accomplished during the past two years in the treatment of influenza. Many physicians, by its judicious use, fortified their patients against the dangers of this dreaded disease. How widespread and serious will it prove this year? Gray's Glycerine Tonic Comp. will no doubt be indicated and physicians may count on obtaining the desired results from its use.

A tonic of known dependability that can be prescribed at any season of the year.

The Purdue Frederick Company

135 Christopher Street **New York City**

Digitized by Google

HAY FEVER MEMORANDA

EARLY SPRING TYPE.—Patients whose hay fever develops in late March, April or beginning of May, should be tested with Pollens of early flowering trees.

LATE SPRING TYPE.—Patients whose hay fever develops in the latter part of May, or during June, should be tested with the Pollens of the chief grasses, such as orchard grass, timothy, red top—and certain early flowering weeds.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover early and late Spring, **also Summer** and **Autumn.**

Literature and List of Pollens on Request.

The Arlington Chemical Company
YONKERS, NEW YORK

Remember

what

Gray's Glycerine Tonic Comp.

accomplished during the past two years in the treatment of influenza. Many physicians, by its judicious use, fortified their patients against the dangers of this dreaded disease. How widespread and serious will it prove this year? Gray's Glycerine Tonic Comp. will no doubt be indicated and physicians may count on obtaining the desired results from its use.

A tonic of known dependability that can be prescribed at any season of the year.

The Purdue Frederick Company

135 Christopher Street **New York City**

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 4

APRIL, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
Prophylaxis and Venereal Disease	81
The Role of Surgery in the Treatment of Retroversion of the Uterus	87
The Care of the Obstetrical Patient During Labor	89
Hospitals and Colleges	91
All in the Day's Work	95
Abstracts from Foreign Journals	97
Editorial	100

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO

To whom all business communications should be addressed

THE MEDICAL WOMAN'S JOURNAL, Publishers

2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

When digestive disorders find your patient in a distressed condition they require immediate relief, that is why we suggest six (6) BELL-ANS dissolved in a glass of hot water prior to your own systematic treatment.

Bell-ans is now universally used.

Digitized by Google

113

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 5

MAY, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
The Possibilities of X-Ray in Pregnancy	105
Some Cases of Epilepsy and Their Treatment	107
Suggestums	111
Mortality Rates of College Women	115
Abstracts	119
American Women's Hospitals	120
Interesting London Letter	126
Again in the Running	128
Editorial	131

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO

Copyright 1921—Margaret H. Rockhill

Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

The fact that the great majority of the Medical Profession recommend SIX (6) BELL-ANS dissolved in a glass of hot water for immediate relief, is substantial evidence that our claim for BELL-ANS is justified.

Bell-ans is now universally used.

Digitized by Google

HAY FEVER MEMORANDA

Series II

LATE SPRING TYPE. Patients whose hay fever develops in the latter part of May, or during June, should be tested with the pollens of the chief grasses, such as orchard grass, timothy, red top, and certain early flowering weeds.

LATE SUMMER TYPE. Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed and golden rod, the related sunflower; also with the pollen of the one important late flowering grass, viz., corn, if exposed to same.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover early and late Spring, **also Summer** and **Autumn.**

Literature and List of Pollens on Request.

The Arlington Chemical Company
YONKERS, NEW YORK

When the Bodily Forces Are Depressed

Gray's Glycerine Tonic Comp.

(Formula of Dr. John P. Gray)

Improves the appetite
Promotes digestion and nutrition
Restores functional activity of vital organs
Increases nerve force
Makes sound sleep possible
Raises the quality of the blood
Stimulates the liver and the flow of the bile
Strengthens the circulation.
Aids elimination of body wastes
Gradually but surely builds up the strength and vitality of the body.

It is always essential, however, that the patient gets the genuine Gray's Glycerine Tonic Comp.

THE PURDUE FREDERICK CO.
135 Christopher St.. New York City

Digitized by Google

HAY FEVER MEMORANDA

Series II

LATE SPRING TYPE. Patients whose hay fever develops in the latter part of May, or during June, should be tested with the pollens of the chief grasses, such as orchard grass, timothy, red top, and certain early flowering weeds.

LATE SUMMER TYPE. Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed and golden rod, the related sunflower; also with the pollen of the one important late flowering grass, viz., corn, if exposed to same.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover early and late Spring, **also Summer** and **Autumn.**

Literature and List of Pollens on Request.

The Arlington Chemical Company
YONKERS, NEW YORK

When the Bodily Forces Are Depressed

Gray's Glycerine Tonic Comp.

(*Formula of Dr. John P. Gray*)

Improves the appetite
Promotes digestion and nutrition
Restores functional activity of vital organs
Increases nerve force
Makes sound sleep possible
Raises the quality of the blood
Stimulates the liver and the flow of the bile
Strengthens the circulation.
Aids elimination of body wastes
Gradually but surely builds up the strength and vitality of the body.

It is always essential, however, that the patient gets the genuine Gray's Glycerine Tonic Comp.

THE PURDUE FREDERICK CO.
135 Christopher St.. New York City

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 6

JUNE, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
The Mobile V Colon, its Causes, Effects and Correction	137
Facts Culled from Fifteen Years' Medical Practice.	141
Suggestums	144
The Boston Meeting	147
American Women's Hospitals	153
The Hospital at Pristina	158
Editorial	163
Work of the A. W. H. in Asia Minor	166

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

The fact that the great majority of the Medical Profession recommend SIX (6) BELL-ANS dissolved in a glass of hot water for immediate relief, is substantial evidence that our claim for BELL-ANS is justified.

Bell-ans is now universally used.

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 7

JULY, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

Page

GALACTOTHERAPY 169

OFFICIAL REPORT OF ANNUAL MEETING MEDICAL WOMEN'S NATIONAL ASS'N..... 172

EDITORIAL 189

WHEN LILLE WAS TAKEN..... 190

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

The fact that the great majority of the Medical Profession recommend SIX (6) BELL-ANS dissolved in a glass of hot water for immediate relief, is substantial evidence that our claim for BELL-ANS is justified.

Bell-ans is now universally used.

Digitized by Google

HAY FEVER MEMORANDA

Series II

LATE SPRING TYPE. Patients whose hay fever develops in the latter part of May, or during June, should be tested with the pollens of the chief grasses, such as orchard grass, timothy, red top, and certain early flowering weeds.

LATE SUMMER TYPE. Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed and golden rod, the related sunflower; also with the pollen of the one important late flowering grass, viz., corn, if exposed to same.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover early and late Spring, **also Summer** and **Autumn.**

Literature and List of Pollens on Request.

The Arlington Chemical Company
YONKERS, NEW YORK

When the Bodily Forces Are Depressed

Gray's Glycerine Tonic Comp.

(Formula of Dr. John P. Gray)

Improves the appetite
Promotes digestion and nutrition
Restores functional activity of vital organs
Increases nerve force
Makes sound sleep possible
Raises the quality of the blood
Stimulates the liver and the flow of the bile
Strengthens the circulation.
Aids elimination of body wastes
Gradually but surely builds up the strength and vitality of the body.

It is always essential, however, that the patient gets the genuine Gray's Glycerine Tonic Comp.

THE PURDUE FREDERICK CO.
135 Christopher St.. New York City

Digitized by Google

HAY FEVER MEMORANDA

SERIES III.

LATE SUMMER TYPE. Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed, goldenrod and the related sunflower. Also with the pollen of the one important late flowering grass, viz., corn, if exposed to same. Together with any pollen of local importance, such as alfalfa in some sections or cockleburr in others.

PATIENTS WHOSE HAY FEVER CONTINUES beyond the pollinating seasons — even into the winter—should be tested with bacterial proteins to locate a possible secondary sensitization of this type.

For those who react to bacterial proteins, specific bacterial vaccines are indicated as supplementary treatment.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover **Early** and **Late Spring**, also **Summer** and **Autumn.**
Literature and List of Pollen Extracts and Specific Bacterial Vaccines on request.

THE ARLINGTON CHEMICAL CO.
YONKERS, NEW YORK

When the Bodily Forces Are Depressed

Gray's Glycerine Tonic Comp.

(*Formula of Dr. John P. Gray*)

Improves the appetite
Promotes digestion and nutrition
Restores functional activity of vital organs
Increases nerve force
Makes sound sleep possible
Raises the quality of the blood
Stimulates the liver and the flow of the bile
Strengthens the circulation.
Aids elimination of body wastes
Gradually but surely builds up the strength and vitality of the body.

It is always essential, however, that the patient gets the genuine Gray's Glycerine Tonic Comp.

THE PURDUE FREDERICK CO.
135 Christopher St.. New York City

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 8

AUGUST, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Page
Racial and Sex Inertia	193
Epidemic Encephalitis	197
Prenatal Care from the Viewpoint of the Hospital	202
Suggestums	205
End Results of the Alexander Operation on Conception and Pregnancy	208
Interesting Letter from Samoa	209
American Women's Hospitals	212
The Academic Course of Sanitary Service at Rome, Italy	213
Editorial	214
What is Being Done for Women and Children in all Parts of the World	215

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

The fact that the great majority of the Medical Profession recommend SIX (6) BELL-ANS dissolved in a glass of hot water for immediate relief, is substantial evidence that our claim for BELL-ANS is justified.

Bell-ans is now universally used.

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 9

SEPTEMBER, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

Page

VITAMINES IN MILK 217
THE NATURE OF EPILEPSY 222
PRELIMINARY REPORT OF WARD TREATMENT OF GONORRHEA IN THE FEMALE 228
ABSTRACTS 232
A SPRING SONG 234
EDITORIAL 236
BOOK REVIEWS 238
DESTITUTION IN EUROPE 239

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

We Leave the Answer to You—

What remedy do you know of that will give immediate relief to a patient suffering from digestive disorders that is as efficient and harmless as SIX (6) BELL-ANS dissolved in a glass of HOT water.

Bell-ans is now universally used.

Digitized by Google

HAY FEVER MEMORANDA

SERIES III.

LATE SUMMER TYPE. Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed, goldenrod and the related sunflower. Also with the pollen of the one important late flowering grass, viz., corn, if exposed to same. Together with any pollen of local importance, such as alfalfa in some sections or cockleburr in others.

PATIENTS WHOSE HAY FEVER CONTINUES beyond the pollinating seasons — even into the winter—should be tested with bacterial proteins to locate a possible secondary sensitization of this type.

For those who react to bacterial proteins, specific bacterial vaccines are indicated as supplementary treatment.

ARLCO-POLLEN EXTRACTS

For **Cutaneous Tests** and **Treatment** cover **Early** and **Late Spring**, also **Summer** and **Autumn**.
Literature and List of Pollen Extracts and Specific Bacterial Vaccines on request.

THE ARLINGTON CHEMICAL CO.

YONKERS, NEW YORK

When the Bodily Forces Are Depressed

Gray's Glycerine Tonic Comp.

(*Formula of Dr. John P. Gray*)

Improves the appetite
Promotes digestion and nutrition
Restores functional activity of vital organs
Increases nerve force
Makes sound sleep possible
Raises the quality of the blood
Stimulates the liver and the flow of the bile
Strengthens the circulation.
Aids elimination of body wastes
Gradually but surely builds up the strength and vitality of the body.

It is always essential, however, that the patient gets the genuine Gray's Glycerine Tonic Comp.

THE PURDUE FREDERICK CO.

135 Christopher St.. New York City

Digitized by Google

IN JANUARY, 1917

THE BACILLUS ACIDOPHILUS

was introduced and made available to the medical profession

FOR THE FIRST TIME

through

BACID PREPARATIONS

which were created solely to make possible the therapeutic use *of* this antiputrefactive organism which has now been used continuously for nearly five years through this exclusive distribution.

BACID PREPARATIONS

TABLETS–CAPSULES–LIQUID CULTURES

do **not now** and **never have** contained the B. bulgaricus—either Type A or Type B

LITERATURE BIBLIOGRAPHY—ON REQUEST

Guaranteed and Manufactured ONLY by

THE ARLINGTON CHEMICAL COMPANY

YONKERS, N. Y.

Tuberculosis and Wasting Diseases

When cod liver oil or fatty foods cannot be digested or assimilated, but tend to further upset an already weakened and deranged digestion, other means must be resorted to for building up and restoring the strength of the body.

Clinical experience has shown that under these conditions

Gray's Glycerine Tonic Comp.

may be used in the place of cod liver, or other oils, with very great satisfaction, as well as advantage, to the patient.

Administered in two to four teaspoonful doses, three or four times daily, Gray's Glycerine Tonic increases the appetite, promotes digestion, and used in conjunction with good food and open-air living, progressively improves the bodily nutrition. Thus in tuberculosis and chronic bronchial affections, it gives substantial aid in checking cough, decreasing night sweats and restoring the patient's vitality and strength.

THE PURDUE FREDERICK CO., 135 Christopher St., New York

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 10

OCTOBER, 1921

$3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Pages
THE RELATIONS OF GYNECOLOGY TO THE GLANDS OF INTERNAL SECRETION	241
BIOLOGICAL FAILURES	245
AMERICAN WOMEN'S HOSPITALS—REPORT TO THE EXECUTIVE BOARD OF THE A. W. H.	246
CHILD HEALTH WORK IN AUSTRIA	253
THE FARM WOMAN	255
BOOK REVIEWS	256
ABSTRACTS	257
EDITORIAL	261
SEVEN TRUTHS TO TEACH A CHILD IN REGARD TO LIFE AND SEX	262
ITEMS OF INTEREST	262

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

We Leave the Answer to You—

What remedy do you know of that will give immediate relief to a patient suffering from digestive disorders that is as efficient and harmless as SIX (6) BELL-ANS dissolved in a glass of HOT water.

Bell-ans is now universally used.

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 11 | NOVEMBER, 1921 | $3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

Pages

A COMPARATIVE STUDY OF THE BIRTH MORTALITY IN THE ALBINO RAT AND IN MAN.. 265

WOMEN AND THE VOTE IN RELATION TO CONSTRUCTIVE HYGIENE 272

THE HEIGHT OF COLLEGE WOMEN..... 274

AMERICAN WOMEN'S HOSPITALS—A THRILLING LETTER FROM TURKEY..... 277

A STORY OF THE WORK BEING DONE IN SERBIA UNDER THE SUPERVISION OF DR. ETTA GRAY 281

LONDON LETTER 275

EDITORIAL 285

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

We Leave the Answer to You—

What remedy do you know of that will give immediate relief to a patient suffering from digestive disorders that is as efficient and harmless as SIX (6) BELL-ANS dissolved in a glass of HOT water.

Bell-ans is now universally used.

Digitized by Google

IN JANUARY, 1917

THE BACILLUS ACIDOPHILUS

was introduced and made available to the medical profession

FOR THE FIRST TIME

through

BACID PREPARATIONS

which were created solely to make possible the therapeutic use *of* this antiputrefactive organism which has now been used continuously for nearly five years through this exclusive distribution.

BACID PREPARATIONS

TABLETS–CAPSULES–LIQUID CULTURES

do **not now** and **never have** contained the B. bulgaricus— either Type A or Type B

LITERATURE–BIBLIOGRAPHY–ON REQUEST

Guaranteed and Manufactured ONLY by

THE ARLINGTON CHEMICAL COMPANY

YONKERS, N. Y.

"Neuralgia and Neuritis"

says a well-known physician, "are merely the 'cry of the nerves' for tonic treatment and better nutrition."

Countless medical men have learned that there is no therapeutic agent that will "answer" this "cry" more promptly and satisfactorily than

Gray's Glycerine Tonic Comp.

Used in two to four teaspoonful doses, three or four times a day, it

1. *Raises the quality of the blood,*
2. *Improves bodily nutrition,*
3. *Overcomes nervous exhaustion,*
4. *Relieves irritablility and pain of the nerves,*
5. *Imparts resisting and staying power to the nervous system,*
6. *Restores the vitality and strength of the whole body.*

Often, therefore, when all other remedies fail to control neuralgia or neuritis, Gray's Glycerine Tonic Comp. will afford prompt and permanent relief.

THE PURDUE FREDERICK CO., 135 Christopher St., New York

Digitized by Google

MEDICAL WOMAN'S JOURNAL

A Monthly Journal Published in the Interests of Women Physicians

OFFICIAL ORGAN OF THE MEDICAL WOMEN'S NATIONAL ASSOCIATION.

Volume XXVIII
Number 12 | DECEMBER, 1921 | $3.00 PER YEAR IN ADVANCE
$3.50 FOREIGN COUNTRIES
SINGLE COPIES, 25 CENTS

EDITORS

ELIZA M. MOSHER, M.D.,
Brooklyn, N. Y.

BERTHA VAN HOOSEN, M.D.,
Chicago, Ill.

GRACE PECKHAM MURRAY, M.D.,
New York, N. Y.

ISABELLE THOMPSON SMART, M.D.,
New York, N. Y.

CONTENTS

	Pages
A PRELIMINARY REPORT ON THE PROBABLE CAUSE OF CANCER AND OF OTHER TUMOR FORMATIONS	289
A COMPARATIVE STUDY OF THE BIRTH MORTALITY IN THE ALBINO RAT AND IN MAN	299
AMERICAN WOMEN'S HOSPITALS	308
REPORT OF CHAIRMAN OF PUBLIC HEALTH COMMITTEE OF THE NATIONAL COUNCIL OF WOMEN	310
REPORT OF MEDICAL WOMEN'S NATIONAL ASSOCIATION OF THE NATIONAL COUNCIL OF WOMEN	312
REPORT OF MEDICAL SERVICE COMMITTEE OF MEDICAL WOMEN'S NATIONAL ASSOCIATION	313
THE WOMEN OF CHINA	314
EDITORIAL	315

MARGARET HACKEDORN ROCKHILL, MANAGING EDITOR, CINCINNATI, OHIO
To whom all business communications should be addressed
THE MEDICAL WOMAN'S JOURNAL, Publishers
2334 Upland Place, Walnut Hills
CINCINNATI, OHIO
Copyright 1921—Margaret H. Rockhill
Entered as Second-class Matter at the Postoffice at Cincinnati, O., July 1909, under the Act of March 3, 1879.

Isn't it comforting to know that your patients can take six (6) Bell-ans dissolved in a glass of hot water and get immediate relief from the distressing symptoms of indigestion, pending your arrival for thorough examination and systematic treatment?

That is the mission of Bell-ans.

Bell-ans is now universally used.

Digitized by Google

IN JANUARY, 1917

THE BACILLUS ACIDOPHILUS

was introduced and made available to the medical profession

FOR THE FIRST TIME

through

BACID PREPARATIONS

which were created solely to make possible the therapeutic use *of* this antiputrefactive organism which has now been used continuously for nearly five years through this exclusive distribution.

BACID PREPARATIONS

TABLETS—CAPSULES LIQUID CULTURES

do **not now** and **never have** contained the B. bulgaricus—either Type A or Type B

LITERATURE—BIBLIOGRAPHY—ON REQUEST

Guaranteed and Manufactured ONLY by

THE ARLINGTON CHEMICAL COMPANY

YONKERS, N. Y.

"Neuralgia and Neuritis"

says a well-known physician, "are merely the 'cry of the nerves' for tonic treatment and better nutrition."

Countless medical men have learned that there is no therapeutic agent that will "answer" this "cry" more promptly and satisfactorily than

Gray's Glycerine Tonic Comp.

Used in two to four teaspoonful doses, three or four times a day, it

1. *Raises the quality of the blood,*
2. *Improves bodily nutrition,*
3. *Overcomes nervous exhaustion,*
4. *Relieves irritablility and pain of the nerves,*
5. *Imparts resisting and staying power to the nervous system,*
6. *Restores the vitality and strength of the whole body.*

Often, therefore, when all other remedies fail to control neuralgia or neuritis, Gray's Glycerine Tonic Comp. will afford prompt and permanent relief.

THE PURDUE FREDERICK CO., 135 Christopher St., New York

Digitized by Google

Digitized by Google

NB847

Digitized by Google

D K 129
3 GAL 241

Digitized by Google

3 2044 103 011 532

Digitized by Google